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AGA American Gas Association

1987 Gas Facts

1986 Data • A Statistical Record of the Gas Utility Industry

Department of Statistics

gas facts

1986 DATA

■ ENERGY RESERVES ■ NATURAL GAS SUPPLY

■ UNDERGROUND STORAGE

■ DISTRIBUTION AND TRANSMISSION

■ ENERGY CONSUMPTION

■ CUSTOMERS ■ SALES ■ REVENUES

■ PRICES ■ APPLIANCE AND HOUSING DATA

■ FINANCE ■ PERSONNEL DATA

■ GLOSSARY ■ INDEX

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GAS FACTS
1986 DATA

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AMERICAN GAS ASSOCIATION

The American Gas Association assumed its present status as the gas utility industry trade association in 1927, after a merger of two predecessor organizations. It renders assistance to the gas utility industry so that the industry may serve its customers more efficiently. Dependence is placed upon the voluntary cooperation of gas companies and established committees composed of representatives from these companies.

The Association recognizes the need for factual information regarding the gas industry for the use, not only of industry organizations, but also interested outside publics. Its statistical efforts are a vital part of this function, and the publication of Gas Facts is one result of these efforts. The statistical activities of A.G.A. are performed by the Department of Statistics with guidance by the Statistics and Related Economics Committee.

1987–88
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INTRODUCTION

GENERAL

This publication contains detailed statistics for 1986 and summary statistics for 1960–1985 for the gas utility industry which by definition, consists of the companies engaged in natural gas distribution and transmission. The publication also contains relevant data on the gas producing segment of the industry and key statistics on other energy industries.

Production data of the gas industry, and pertinent other energy industry data, are also included. Gas volumes are expressed in millions of cubic feet (at 14.73 psia and 60°F unless otherwise noted) and in British thermal units (Btu) to permit direct comparison with other energy data. A conversion table is included as Appendix B.

Appendix C contains a sample listing of gas utility companies according to their classification as distribution, transmission, integrated, or in some cases, combination companies. These classifications are defined in the glossary, Appendix A. Appendix D contains consumption data gathered by the Gas Requirements Committee. Throughout the publication totals may not add due to independent rounding.

The user should be aware that there has developed a sizeable transportation market which directly affects gas utility sales quantities. Although total pipeline throughput may remain the same, as transportation volumes to end-users increase, gas utility sales quantities to end-users will decrease.

Data presented in *Gas Facts,* broken down by company type, are not necessarily comparable from year to year. Acquisitions, mergers and corporate reorganizations continue to cause the number of companies in any given category to vary from year to year. Some of these changes are sizeable and can cause a dramatic shift in the data reported for a specific category from year to year.

SOURCES OF INFORMATION

Most of the information contained in this volume is developed from data contained in the Uniform Statistical Report, a detailed information form prepared annually by both electric and gas utility companies. Information is also derived from reports filed with regulatory commissions, from financial publications, and from statistical reports prepared by government and private agencies. For 1986, the gas utility companies participating in the Uniform Statistical Report survey represented 97 percent of total gas utility industry sales. Data for non-reporting companies, whose sales represent the remaining 3 percent, were estimated based on recent historical experience.

Employee accident data were taken from the A.G.A. *Disabling Injury Experience of the Gas Utility Industry* report and the National Safety Council *Accident Facts.* Estimates of proved reserves of natural gas, natural gas liquids and petroleum were taken from the U.S. Department of Energy report *U.S.*

Crude Oil, Natural Gas and Natural Gas Liquids Reserves, 1986 annual report. Since this time series only begins in 1977, A.G.A., API and CPA data on natural gas reserves, 1960–1979, are presented. Statistics on underground storage operations were developed by the A.G.A. Committee on Underground Storage. Data for gas spaceheating customers were taken from the A.G.A. *Gas Househeating Survey.* Data on new security issues, as well as related cost and yield data, were derived from various financial publications, supplemented by data provided in the Uniform Statistical Report.

ACKNOWLEDGEMENTS

Our thanks go to those companies participating in the Uniform Statistical Report information gathering effort. Their cooperation and support are the essential elements which have made this publication a primary source of gas utility industry data, and an important industry reference. The cooperation of the public and governmental agencies credited in tables is also greatly appreciated.

Credit also goes to Senior Energy Statistician Ellen Hahn, Energy Statisticians Carole Williams-Hopkins and Susan Brown, and Summer Interns Elizabeth O'Brien and Julie Sanchez. Also contributing to the effort were the A.G.A. Computer Services and Publications/Graphic Services Departments; Bob Kalisch—Director, Gas Supply and Statistics; and Patrick Curley—Manager, Statistical Services.

SECTION 1
1986 IN REVIEW

Natural gas supplies continued to exceed demand in 1986. Despite a major downturn in gas well completions in 1986, reserve additions were unexpectedly strong replacing 96.1 percent of production in the lower-48 states. The decrease in gas well drilling in 1986 was a result of an excess gas production capability, the "bubble", which served as a serious deterrent to new gas exploration and production activity.

Lower-48 state reserves additions were 14.7 Tcf in 1986 and total U.S. reserves declined less than one percent to 192 Tcf. Even so, reserves additions for the lower-48 states have averaged 93.2 percent of production from 1981-1986.

Distribution and transmission facilities increased in 1986 to 1,134.1 thousand miles of distribution main and pipeline, while storage capacity remains over 7.7 Tcf. Thus the gas utility industry's deliverability capacity continues to be matched to the steadily expanding number of gas customers. Average gas utility customers increased in 1986 to 50,710,300.

Gas utility industry sales declined 11.8% in 1986 to 11,126.4 trillion Btu. Residential and commercial sales decreased 2.9% and 4.3%, respectively, from 1985 levels, while industrial sales decreased 23.0%.

Natural gas prices declined 8.3% in 1986 reflecting the impact of competitive market pricing for natural gas.

TABLE 1-1
COMPARISON OF GAS UTILITY INDUSTRY CUSTOMERS, SALES, AND REVENUES BY CLASS OF SERVICE, 1986 AND 1985

	1986	1985	Percentage Change
CUSTOMERS—TOTAL[a]	**50,710,300**	**49,971,300**	**+ 1.5**
Residential	46,588,100	45,929,300	+ 1.4
Commercial	3,892,600	3,815,700	+ 2.0
Industrial	177,600	179,100	− 0.8
Other	52,000	47,300	+10.0
SALES—TOTAL[b]	**11,126,400**	**12,615,500**	**−11.8**
Residential	4,380,100	4,513,000	− 2.9
Commercial	2,238,400	2,338,100	− 4.3
Industrial	4,340,700	5,634,900	−23.0
Other	167,200	129,500	+29.1
REVENUES—TOTAL[c]	**$51,194,197**	**$63,293,162**	**−19.1**
Residential	24,750,086	26,864,030	− 7.9
Commercial	11,267,985	12,722,274	−11.4
Industrial	14,503,165	23,086,372	−37.2
Other	672,961	620,486	+ 8.5

a. Yearly averages.
b. Sales quantities in billions of Btu.
c. Revenues in thousands of dollars.

SECTION 2
ENERGY RESERVES

Prior to 1980, data on reserves of oil, natural gas and gas liquids were taken from *Reserves of Crude Oil, Natural Gas Liquids, and Natural Gas in the United States and Canada,* an annual report published jointly by A.G.A., the American Petroleum Institute (API) and the Canadian Petroleum Association (CPA). The publication of this report was discontinued after the year-end 1979 report was released in June, 1980. Since 1977, however, the Energy Information Administration (EIA) within the Department of Energy has published an annual reserves report. Data listed below and in several of the tables in this section were taken from the EIA series. For years prior to 1980 A.G.A./API/CPA data is also listed for natural gas reserves.

Reserves as of December 31

	1986	% Change 86/85
Natural Gas		
(Billions of cubic feet)		
Total	191,586	− 0.9
% of Non-Associated, estimated	70.4	+ 0.6
% of Associated-Dissolved, estimated	29.6	− 1.3
Underground Storage*	5,214	+ 1.6
Gross Additions	8,935	− 24.9
Production	15,610	− 2.3
Natural Gas Liquids		
(Millions of barrels)		
Total	8,165	+ 2.8
Gross Additions	959	− 9.0
Production	738	− 2.0
Crude Oil		
(Millions of barrels)		
Total	26,889	− 5.4
Gross Additions	1,446	− 52.1
Production	2,973	− 2.6

*Not included in Total Reserves. Data taken from "The Underground Storage of Gas in the United States and Canada."

CHART 1-1

SELECTED GAS INDUSTRY HIGHLIGHTS OF 1986

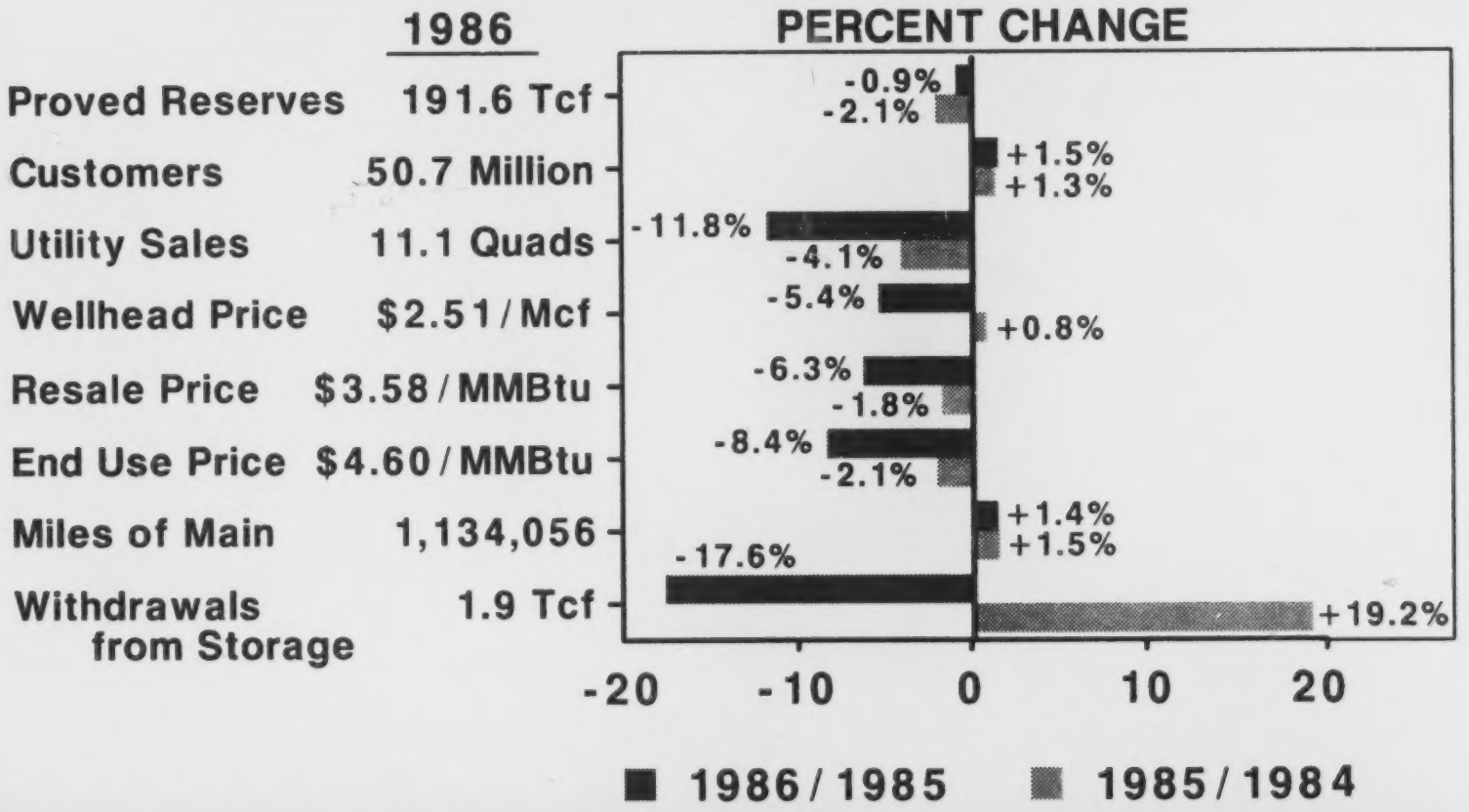


TABLE 2-1
SUMMARY OF ANNUAL ESTIMATES OF PROVED RESERVES OF NATURAL GAS IN THE UNITED STATES, 1960–1979[a]

(Millions of Cubic Feet)

	Changes in Reserves during year										
Year	Extensions	Extensions and Revisions	Revisions	New Field Discoveries	Discoveries of New Fields and New Pools in Old Fields	New Reservoir Discoveries	Total of Discoveries, Revisions and Extensions	Net Change in Underground Storage	Preliminary Net Production during Year[c]	Estimated Proved Reserves as of End of Year	Change over Previous Year
1960	—	7,293,015	—	—	6,600,963	—	13,893,978	281,273	13,019,356	262,326,326	1,155,895
1961	—	10,258,692	—	—	6,907,729	—	17,166,421	159,544	13,378,649	266,273,642	3,947,316
1962	—	13,184,794	—	—	6,299,164	—	19,483,958	159,231	13,637,973	272,278,858	6,005,216
1963	—	12,586,733	—	—	5,577,934	—	18,164,667	253,733	14,546,025	276,151,233	3,872,375
1964	—	13,342,838	—	—	6,909,301	—	20,252,139	195,110	15,347,028	281,251,454	5,100,221
1965	—	14,775,570	—	—	6,543,709	—	21,319,279	150,483	16,252,293	286,468,923	5,217,469
1966	9,224,745	—	4,937,962	2,947,329	—	3,110,396	20,220,432	134,523	17,491,073	289,332,805	2,863,882
1967	9,538,584	—	6,570,578	3,170,520	—	2,524,651	21,804,333	151,403	18,380,838	292,907,703	3,574,898
1968	7,758,821	—	3,016,146	1,376,429	—	1,545,612	13,697,008	118,569	19,373,428	287,349,852	(5,557,851)
1969	5,800,489	—	(1,238,261)	1,769,557	—	2,043,219	8,375,004	107,169	20,723,190	275,108,835	(12,241,017)
1970	6,158,168	—	(99,721)	27,770,223[b]	—	3,367,689	37,196,359	402,018	21,960,804	290,746,408	15,637,573
1971	6,374,706	—	(1,227,400)	1,317,574	—	3,360,541	9,825,421	310,301	22,076,512	278,805,618	(11,940,790)
1972	6,153,683	—	(1,077,791)	1,462,539	—	3,096,132	9,634,563	156,563	22,511,898	266,084,846	(12,720,772)
1973	6,177,286	—	(3,474,756)	2,152,151	—	1,970,368	6,825,049	(354,282)	22,605,406	249,950,207	(16,134,639)
1974	5,847,251	—	(1,333,285)	2,013,745	—	2,151,473	8,679,184	(178,424)	21,318,470	237,132,497	(12,817,410)
1975	6,027,433	—	383,449	2,423,382	—	1,649,424	10,483,688	302,561	19,718,570	228,200,176	(8,932,321)
1976	5,337,707	—	(1,197,119)	1,421,013	—	1,993,867	7,555,468	(187,550)	19,542,020	216,026,074	(12,174,102)
1977	6,601,229	—	983,551	2,114,505	—	2,152,639	11,851,924	446,930	19,447,050	208,877,878	(7,148,196)
1978	6,733,441	—	118,436	1,719,938	—	2,014,329	10,586,144	148,733	19,311,048	200,301,707	(8,576,171)
1979	7,113,113	—	2,907,551	2,575,779	—	1,689,504	14,285,947	239,323	19,910,353	194,916,624	(5,385,083)

a. Volumes are calculated at a pressure base of 14.73 psi, absolute, and at a standard temperature of 60°F.
b. Includes the estimates of proved reserves in the Prudhoe Bay Permo-triassic reservoir discovered in 1968 and not previously included.
c. "Preliminary Net Production" equals estimated gross withdrawals less (1) gas reinjected into producing reservoirs for cycling and pressure maintenance, and (2) natural gas liquids. "Preliminary Net Production" differs from U.S. Bureau of Mines "Marketed Production" in that (1) the sources from which they are derived are different, and (2) "Marketed Production" includes natural gas liquids.

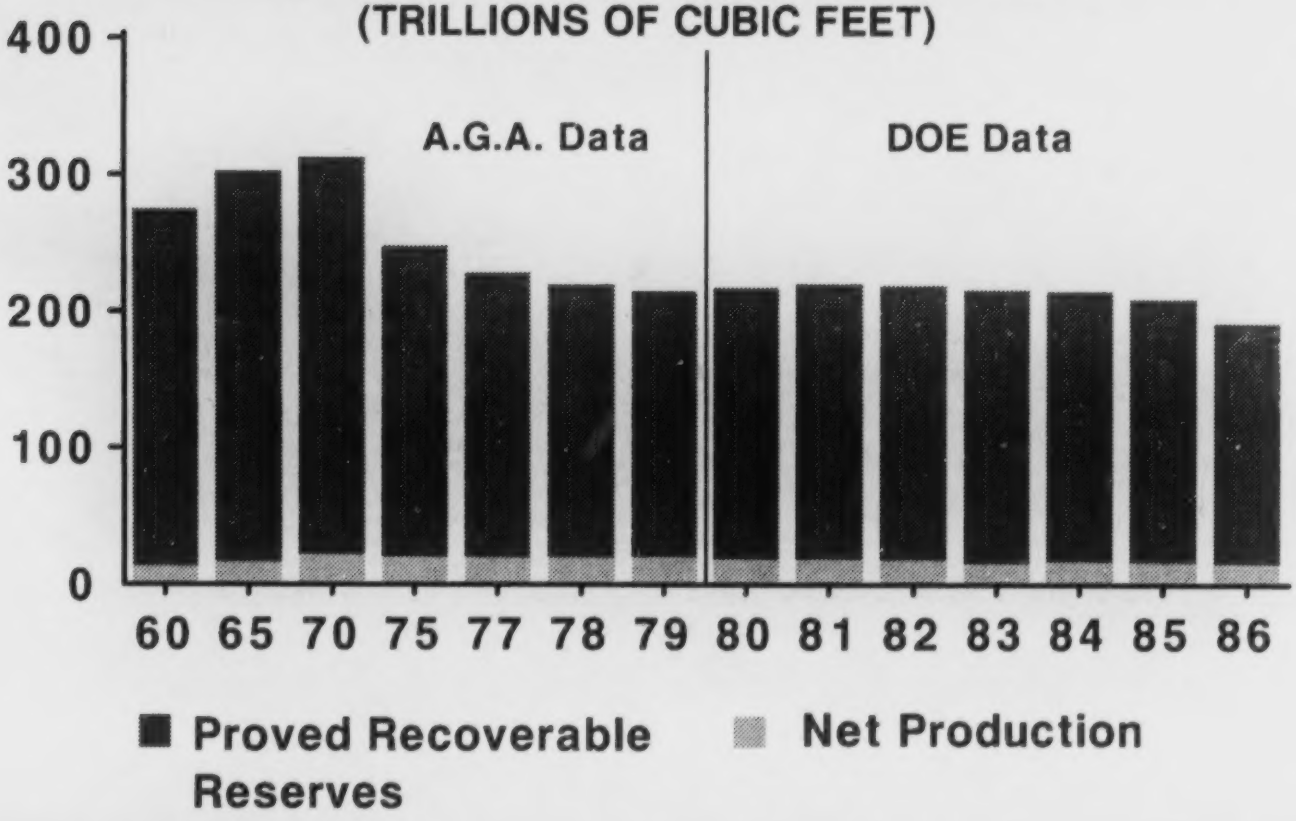
( ): Denotes negative value.

Source: A.G.A., American Petroleum Institute and Canadian Petroleum Association. *Reserves of Crude Oil, Natural Gas in the United States and Canada as of December 31, 1979.*

Note: Publication of the above mentioned source ceased with the December 31, 1979 edition. See Table 2-2 for EIA information covering 1976-1985.

CHART 2-1

PROVED RECOVERABLE RESERVES & NET PRODUCTION OF NATURAL GAS IN THE UNITED STATES



REFERENCE: TABLES 2-1, 2-2

TABLE 2-2
SUMMARY OF ANNUAL ESTIMATES OF PROVED RESERVES OF NATURAL GAS IN THE UNITED STATES, 1976–1986

(Billions of Cubic Feet)

	Changes in Reserves During Year									
Year	Net of Corrections and Adjustments (1)	Revision Increases (2)	Revision Decreases (3)	Extensions to Old Reservoirs (4)	New Reservoir Discoveries in Old Fields (5)	New Field Discoveries (6)	Total Discoveries[a] (7)	Production Dry (8)	Proved Reserves[b] 12/31 (9)	Net Change From Prior Year (10)
1976	—	—	—	—	—	—	—	—	213,278[c]	—
1977	(20)[d]	13,691	15,296	8,129	3,301	3,173	14,603	18,843	207,413	(5,865)
1978	2,429	14,969	15,994	9,582	4,579	3,860	18,021	18,805	208,033	620
1979	(2,264)	16,410	16,629	8,950	2,566	3,188	14,704	19,257	200,997	(7,036)
1980	1,201	16,972	15,923	9,357	2,577	2,539	14,473	18,699	199,021	(1,976)
1981	1,627	16,412	13,813	10,491	2,998	3,731	17,220	18,737	201,730	2,709
1982	2,378	19,795	19,340	8,349	3,419	2,687	14,455	17,506	201,512	(218)
1983	3,090	17,602	17,617	6,909	2,965	1,574	11,448	15,788	200,247	(1,265)
1984	(2,241)	17,841	14,712	8,299	2,686	2,536	13,521	17,193	197,463	(2,784)
1985	(1,708)	18,775	16,304	7,169	2,960	999	11,128	15,985	193,369	(4,094)
1986	1,320	21,269	17,697	6,065	1,771	1,099	8,935	15,610	191,586	(1,783)

a. Col. 4+Col. 5+Col. 6=Col. 7.
b. Proved reserves= Prior year Col. 9+Col. 1+Col. 2−Col. 3+Col. 7− Col. 8.
c. Based on following year data only.
d. Consists only of reported corrections.
Note: "Old" means discovered in a prior year. "New" means discovered during the report year.
Source: U.S. Department of Energy, Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, 1986 Annual Report.

TABLE 2-3
CHANGES IN ESTIMATED PROVED RESERVES OF NATURAL GAS, IN THE UNITED STATES BY STATE, DURING 1986[a]

(Billions of Cubic Feet)

State and Subdivision	Published Proved Reserves 12/31/86	Changes in Reserves During 1986		
		Net of Corrections and Adjustments	Revision Increases	Revision Decreases
(1) Total United States	**191,369**	**1,320**	**21,269**	**17,697**
(2) Alabama Onshore	821	180	57	60
(3) Alaska	33,847	(298)	185	757
(4) Arkansas	2,019	55	180	262
(5) California	4,325	63	211	381
(6) Coastal Region Onshore	256	(3)	54	27
(7) Los Angeles Basin Onshore	181	(21)	21	24
(8) San Joaquin Basin Onshore	3,574	66	134	256
(9) State Offshore	314	21	2	74
(10) Colorado	2,881[d]	130	372	277
(11) Florida	55	3	-0	1
(12) Kansas	9,337	(239)	1,956	274
(13) Kentucky	766	7	126	9
(14) Louisiana[b]	14,038	127	1,526	1,962
(15) North	2,587	182	319	395
(16) South Onshore	9,808	(14)	1,080	1,287
(17) State Offshore[b]	1,643	(41)	127	280
(18) Michigan	985	(32)	105	78
(19) Mississippi	1,360	51	192	214
(20) Montana	857	(61)	60	31
(21) New Mexico	10,900	(176)	2,049	491
(22) East	3,034	(179)	378	284
(23) West	7,866	3	1,671	207
(24) New York	369[d]	133	17	43
(25) North Dakota	569	6	57	51
(26) Ohio	1,331	264	51	94
(27) Oklahoma	16,040	835	2,158	1,963
(28) Pennsylvania	1,617[d]	(36)	202	242
(29) Texas	41,775	97	5,220	4,171
(30) District 1	967	(1)	129	85
(31) District 2 Onshore	2,358	(30)	349	323
(32) District 3 Onshore	4,180	27	416	538
(33) District 4 Onshore	8,250	172	1,258	1,062
(34) District 5	2,058	(55)	459	247
(35) District 6	4,822	137	630	648
(36) District 7B	708	54	22	59
(37) District 7C	2,914	(173)	333	174
(38) District 8	7,330	137	866	498
(39) District 8A	958	(94)	82	43
(40) District 9	892	4	104	43
(41) District 10	5,469	(45)	517	396
(42) State Offshore	869	(36)	55	55
(43) Utah	1,999	(68)	51	78
(44) Virginia	235	(17)	4	16
(45) West Virginia	2,058	(10)	340	177
(46) Wyoming	10,617	(93)	1,631	2,354
(47) Federal Offshore	34,492	337	4,518	3,709
(48) Miscellaneous[c]	76	62	1	2

a. Volumes are calculated at a pressure base 14.73 psi, absolute, and at a standard temperature of 60°F.
b. Includes offshore Alabama.
c. Includes Arizona, Illinois, Indiana, Maryland, Nebraska, Oregon, South Dakota, and Tennessee.
d. Indicates that the estimate is associated with a sampling error (95 percent confidence interval) which exceeds 20 percent of the estimated value.

Note: "Old" means discovered in a prior year. "New" means discovered during the report year.

Source: U.S. Department of Energy, Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, 1986 Annual Report.

TABLE 2-3 (Continued)
CHANGES IN ESTIMATED PROVED RESERVES OF NATURAL GAS, IN THE UNITED STATES BY STATE, DURING 1986

(Billions of Cubic Feet)

Changes in Reserves During 1986					
Extensions	New Field Discoveries	New Reservoir Discoveries In Old Fields	Production	Proved Reserves 12/31/86	
6,065	**1,099**	**1,771**	**15,610**	**191,586**	(1)
12	29	7	95[d]	951	(2)
1	0	10	324	32,664	(3)
100	0	23	123	1,992	(4)
80	2	0	372	3,928	(5)
1	0	0	26	255	(6)
2	0	0	17	142	(7)
70	2	0	313	3,277	(8)
7	0	0	16	254	(9)
108	0	1	188[d]	3,027	(10)
0	0	0	8	49	(11)
151	37	2	461	10,509	(12)
6	0	1	56	841	(13)
729	7	206	1,741	12,930	(14)
102	1	53	334	2,515	(15)
584	6	145	1,219	9,103	(16)
43	0	8	188	1,312	(17)
80	65	142	128	1,139	(18)
71	0	5	165	1,300	(19)
7	4	9	42	803	(20)
145	3	6	628	11,808	(21)
61	3	6	325	2,694	(22)
84	0	0	303	9,114	(23)
0	0	8	27[d]	457[d]	(24)
10	2	3	55	541	(25)
10	0	7	149	1,420	(26)
861	14	398	1,658	16,685	(27)
127	6	2	116	1,560	(28)
1,821	79	373	4,620	40,574	(29)
17	1	1	116	913	(30)
125	10	32	341	2,180	(31)
209	29	69	639	3,753	(32)
654	28	143	1,169	8,274	(33)
91	0	0	165	2,141	(34)
300	4	24	415	4,854	(35)
35	3	23	102	684	(36)
53	1	5	238	2,721	(37)
90	0	27	619	7,333	(38)
7	0	0	65	845	(39)
39	0	0	128	868	(40)
192	3	25	489	5,276	(41)
9	0	24	134	732	(42)
51	0	0	60	1,895	(43)
61	0	1	15	253	(44)
69	2	19	153	2,148	(45)
314	17	26	402	9,756	(46)
1,249	332	522	4,018	34,223	(47)
2	0	0	6	133	(48)

TABLE 2–5
CHANGES IN ESTIMATED PROVED RESERVES OF NATURAL GAS LIQUIDS, IN THE UNITED STATES BY STATE, DURING 1986

(Millions of Barrels)[a]

State and Subdivision	Published Proved Reserves 12/31/85	Changes In Reserves During 1986		
		Net of Corrections and Adjustments	Revision Increases	Revision Decreases
(1) Total United States	7,944	367	1,030	807
(2) Alabama	182	2	5	2
(3) Alaska	383	4	0	3
(4) Arkansas	11	6	1	2
(5) California	146	3	8	13
(6) Coastal Region Onshore	16	(1)	3	2
(7) Los Angeles Basin Onshore	6	3	1	1
(8) San Joaquin Basin Onshore	120	1	4	8
(9) State Offshore	4	0	0	2
(10) Colorado	173	(25)	22	18
(11) Florida	17	(1)	0	0
(12) Kansas	373	8	82	12
(13) Kentucky	27	0	4	0
(14) Louisiana	546	27	72	86
(15) North	65	(5)	9	9
(16) South Onshore	442	23	58	67
(17) State Offshore	39	9	5	10
(18) Michigan	67	3	8	6
(19) Mississippi	12	2	1	3
(20) Montana	21	(4)	1	1
(21) New Mexico	445	90	104	33
(22) East	209	22	31	24
(23) West	236	68	73	9
(24) North Dakota	74	(2)	8	6
(25) Oklahoma	826	48	116	111
(26) Texas	2,901	159	362	279
(27) District 1	40	(2)	5	4
(28) District 2 Onshore	100	(5)	17	14
(29) District 3 Onshore	260	1	29	36
(30) District 4 Onshore	269	19	45	42
(31) District 5	77	7	17	11
(32) District 6	293	(14)	41	38
(33) District 7B	104	19	3	10
(34) District 7C	256	(7)	31	17
(35) District 8	665	62	87	48
(36) District 8A	283	56	32	17
(37) District 9	111	13	13	7
(38) District 10	433	8	42	34
(39) State Offshore	10	2	0	1
(40) Utah and Wyoming	949	60	110	139
(41) West Virginia	86	(4)	14	7
(42) Federal Offshore	702	(8)	112	86
(43) Miscellaneous[b]	3	(1)	0	0

a. Barrel = 42 U.S. gallons.
b. Includes Illinois, Indiana, Nebraska, New York, Ohio, Pennsylvania, and Tennessee.
Source: U.S. Department of Energy, Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, 1986 Annual Report.

TABLE 2-5 (Continued)
CHANGES IN ESTIMATED PROVED RESERVES OF NATURAL GAS LIQUIDS, IN THE UNITED STATES BY STATE, DURING 1986

(Millions of Barrels)[a]

Changes in Reserves During 1986					
Extensions	New Field Discoveries	New Reservoir Discoveries in Old Fields	Production	Proved Reserves 12/31/86	
263	**34**	**72**	**738**	**8,165**	**(1)**
0	5	0	15	177	(2)
0	0	0	3	381	(3)
1	0	0	1	16	(4)
2	0	0	12	134	(5)
0	0	0	1	15	(6)
0	0	0	1	8	(7)
2	0	0	10	109	(8)
0	0	0	0	2	(9)
6	0	0	10	148	(10)
0	0	0	2	14	(11)
6	2	0	19	440	(12)
0	0	0	2	29	(13)
26	0	8	69	524	(14)
3	0	1	7	57	(15)
22	0	7	57	428	(16)
1	0	0	5	39	(17)
6	9	11	10	88	(18)
0	0	0	1	11	(19)
0	0	0	1	16	(20)
8	0	0	37	577	(21)
5	0	0	26	217	(22)
3	0	0	11	360	(23)
1	0	0	6	69	(24)
44	2	20	88	857	(25)
112	2	21	314	2,964	(26)
1	0	0	5	35	(27)
5	0	1	15	89	(28)
17	1	5	40	237	(29)
24	1	4	39	281	(30)
3	0	0	7	86	(31)
18	0	1	24	277	(32)
5	0	4	16	109	(33)
4	0	0	21	246	(34)
9	0	4	62	717	(35)
3	0	0	26	331	(36)
6	0	0	17	119	(37)
17	0	2	40	428	(38)
0	0	0	2	9	(39)
24	2	2	58	950	(40)
3	0	1	6	87	(41)
24	12	9	84	681	(42)
0	0	0	0	2	(43)

TABLE 2-6
TOTAL ESTIMATED REMAINING IDENTIFIED RESERVES OF COAL AND LIGNITE BY STATE, AS OF JANUARY 1, 1985

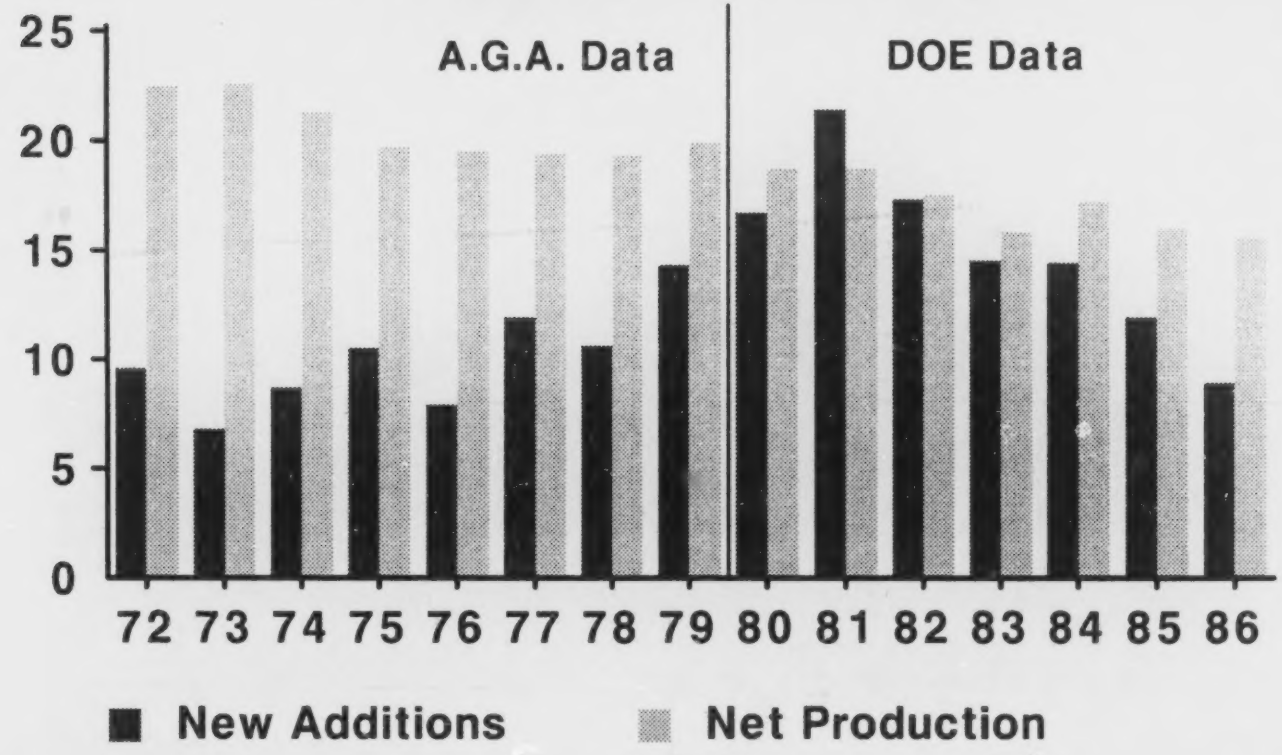
(Billions of Short Tons)

State	Total Coal and Lignite	Coal			
		Anthracite and Semianthracite	Subbituminous	Bituminous	Lignite
United States	**478.2**	**7.3**	**181.0**	**244.9**	**45.0**
Alabama	5.1	—	—	4.0	1.1
Alaska	6.1	—	5.4	.7	a
Arizona	.3	—	—	.3	—
Arkansas	.4	.1	—	.3	a
Colorado	17.2	a	4.0	9.0	4.2
Georgia	a	—	—	a	—
Idaho	a	—	—	a	—
Illinois	78.9	—	—	78.8	—
Indiana	10.4	—	—	10.4	—
Iowa	2.2	—	—	2.2	—
Kansas	1.0	—	—	1.0	—
Kentucky	31.0	—	—	31.0	—
Maryland	.8	—	—	.8	—
Michigan	.1	—	—	.1	—
Missouri	6.0	—	—	6.0	—
Montana	120.2	—	103.1	1.4	15.8
New Mexico	4.6	a	2.6	2.0	—
North Carolina	a	—	—	a	—
North Dakota	9.8	—	—	—	9.8
Ohio	18.8	—	—	18.8	—
Oklahoma	1.6	—	—	1.6	—
Oregon	a	—	a	—	—
Pennsylvania	29.8	7.1	—	22.7	—
South Dakota	.4	—	—	—	.4
Tennessee	.9	—	—	.9	—
Texas	13.7	—	—	—	13.7
Utah	6.3	—	a	6.3	—
Virginia	3.1	.1	—	3.0	—
Washington	1.5	—	1.2	.3	a
West Virginia	38.7	—	—	38.7	—
Wyoming	69.2	—	64.8	4.4	—

a. Less than 50 million short tons.
Source: U.S. Department of Energy, Energy Information Administration, *Coal Production 1985*.

CHART 2-2

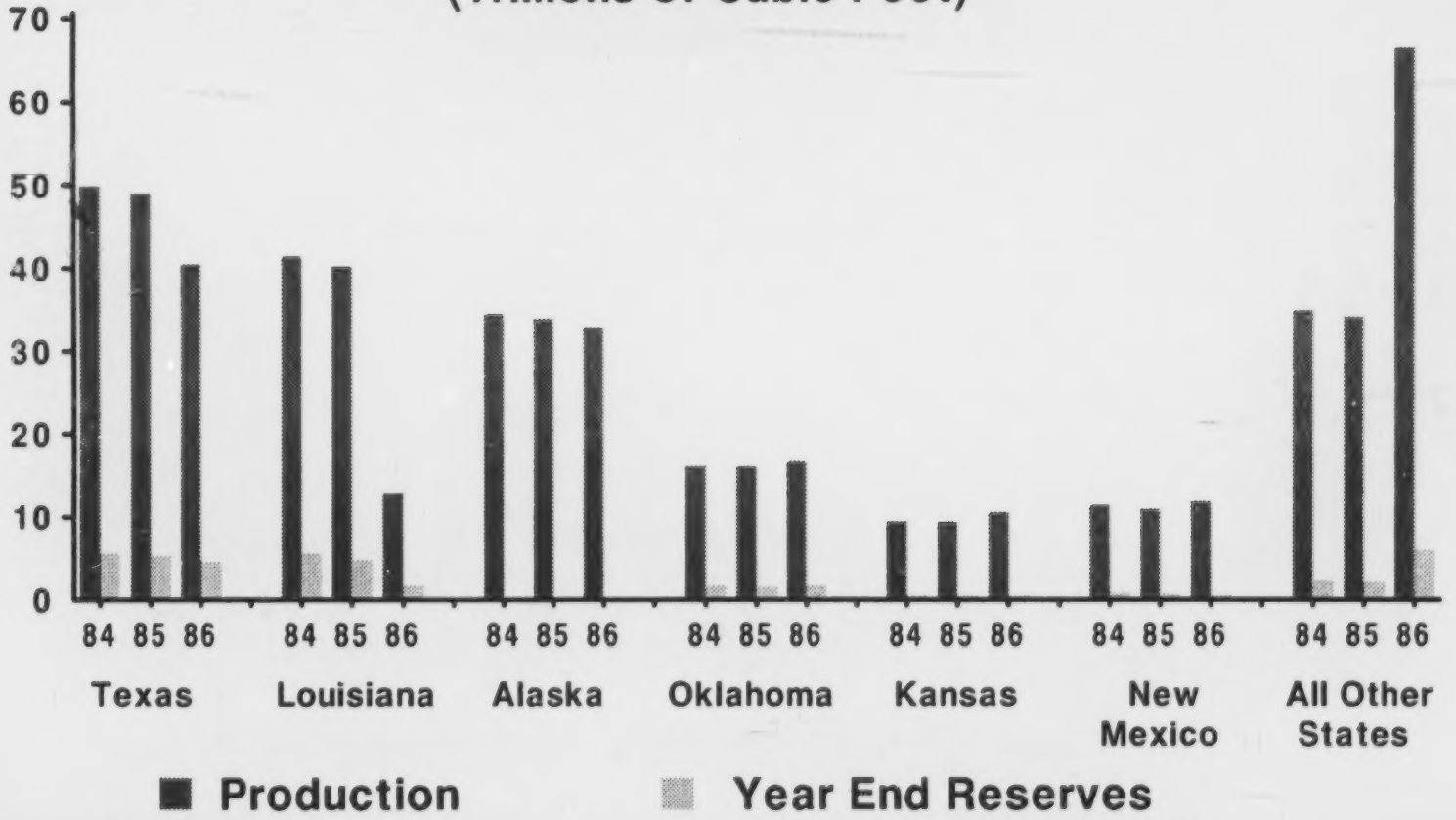
NET PRODUCTION AND NEW ADDITIONS TO GAS RESERVES (TRILLIONS OF CUBIC FEET)



REFERENCE: TABLES 2-1, 2-2

CHART 2-3

NATURAL GAS STATE RESERVES FOR 1984, 1985 & 1986
(Trillions of Cubic Feet)



REFERENCE: TABLE 2-3

TABLE 2-4
SUMMARY OF ANNUAL ESTIMATES OF PROVED RESERVES OF NATURAL GAS LIQUIDS IN THE UNITED STATES, 1978–1986

(Millions of Barrels)[a]

Year	Net of Corrections and Adjustments (1)	Revision Increases (2)	Revision Decreases (3)	Extensions to Old Reservoirs (4)	New Reservoir Discoveries in Old Fields (5)	New Field Discoveries (6)	Total Discoveries[b] (7)	Production (8)	Proved Reserves[c] 12/31 (9)	Net Change From Prior Year (10)
1978	—	—	—	—	—	—	—	—	6,772[d]	—
1979	64[e]	677	726	364	97	94	555	727	6,615	(157)
1980	153	743	639	418	79	90	587	731	6,728	113
1981	231	729	643	542	91	131	764	741	7,068	340
1982	299	811	832	375	109	112	596	721	7,221	153
1983	849	847	781	321	99	70	490	725	7,901	680
1984	(123)	866	724	348	96	55	499	776	7,643	(258)
1985	426	906	744	337	85	44	466	753	7,944	301
1986	367	1,030	807	263	72	34	369	738	8,165	221

a. Barrel = 42 U.S. gallons.
b. Col. 4 + Col. 5 + Col. 6 = Col. 7.
c. Proved Reserves = Prior year Col. 9 + Col. 1 + Col. 2 − Col. 3 + Col. 7 − Col. 8.
d. Based on following year data only.
e. Consists only of reported corrections.
Note: "Old" means discovered in a prior year. "New" means discovered during the report year.
Source: U.S. Department of Energy, Energy Information Administration, *U.S. Crude Oil, Natural Gas and Natural Gas Liquids Reserves*, 1986 Annual Report.

TABLE 2-7
SUMMARY OF ANNUAL ESTIMATES OF PROVED RESERVES OF CRUDE OIL IN THE UNITED STATES, 1976–1986

(Millions of Barrels)[a]

Year	Net of Corrections and Adjustments (1)	Revision Increases (2)	Revision Decreases (3)	Extensions to Old Reservoirs (4)	New Reservoir Discoveries in Old Fields (5)	New Field Discoveries (6)	Total Discoveries[b] (7)	Production (8)	Proved Reserves[c] 12/31 (9)	Net Change From Prior Year (10)
1976	—	—	—	—	—	—	—	—	33,502[d]	—
1977	(40)[e]	1,503	1,117	496	130	168	794	2,862	31,780	(1,722)
1978	366	2,799	1,409	444	116	267	827	3,008	31,355	(425)
1979	337	2,438	2,001	424	104	108	636	2,955	29,810	(1,545)
1980	219	2,883	994	572	147	143	862	2,975	29,805	(5)
1981	138	2,151	880	750	157	254	1,161	2,949	29,426	(379)
1982	(83)	2,245	1,811	634	193	204	1,031	2,950	27,858	(1,568)
1983	462	2,810	1,299	629	190	105	924	3,020	27,735	(123)
1984	159	3,672	1,227	766	158	242	1,144	3,037	28,446	711
1985	429	3,037	1,439	742	169	84	995	3,052	28,416	(30)
1986	57	2,724	1,869	405	81	48	534	2,973	26,889	(1,527)

a. Barrel = 42 U.S. gallons.
b. Col. 4 + Col. 5 + Col. 6 = Col. 7.
c. Proved Reserves = Prior year Col. 9 + Col. 1 + Col. 2 − Col. 3 + Col. 7 − Col. 8.
d. Based on following year data only.
e. Consists only of reported corrections.
Note: "Old" means discovered in a prior year. "New" means discovered during the report year.
Source: U.S. Department of Energy, Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, 1986 Annual Report.

TABLE 2-8
CHANGES IN ESTIMATED PROVED RESERVES OF CRUDE OIL, IN THE UNITED STATES BY STATE, DURING 1986

(Millions of Barrels)[a]

State and Subdivision	Published Proved Reserves 12/31/85	Changes in Reserves During 1986		
		Net of Corrections and Adjustments	Revision Increases	Revision Decreases
(1) Total United States	**28,416**	**57**	**2,724**	**1,869**
(2) Alabama	69	(4)	12	11
(3) Alaska	7,056	(13)	723	227
(4) Arkansas	97	5	18	21
(5) California	4,810	164	330	228
(6) Coastal Region Onshore	631	(6)	55	57
(7) Los Angeles Basin Onshore	420	(38)	38	52
(8) San Joaquin Basin Onshore	3,258	123	232	101
(9) State Offshore	501	85	5	18
(10) Colorado	198	16	27	11
(11) Florida	77	(1)	1	1
(12) Illinois	136	15	7	3
(13) Indiana	35[b]	6	0	3
(14) Kansas	423	(54)	21	32
(15) Kentucky	42[b]	(5)	1	2
(16) Louisiana	883	24	133	107
(17) North	196	6	18	37
(18) South Onshore	565	12	99	61
(19) State Offshore	122	6	16	9
(20) Michigan	191	(25)	17	17
(21) Mississippi	181	17	43	23
(22) Montana	232	7	65	34
(23) Nebraska	42	6	6	3
(24) New Mexico	688	5	52	45
(25) East	643	(6)	49	41
(26) West	45	11	3	4
(27) North Dakota	255	(6)	31	36
(28) Ohio	79	11	1	8
(29) Oklahoma	935	31	115	121
(30) Pennsylvania	38[b]	4	1	17
(31) Texas	7,782	(68)	576	481
(32) District 1	177	(9)	5	8
(33) District 2 Onshore	168	12	20	24
(34) District 3 Onshore	471	(3)	59	37
(35) District 4 Onshore	98	3	17	18
(36) District 5	59[b]	4	2	5
(37) District 6	851	(27)	27	28
(38) District 7B	239	(18)	11	14
(39) District 7C	243	8	28	44
(40) District 8	2,333	13	174	156
(41) District 8A	2,711	6	196	122
(42) District 9	285	(22)	20	11
(43) District 10	140[b]	(30)	17	14
(44) State Offshore	7	(5)	0	0
(45) Utah	276	22	9	27
(46) West Virginia	40	6	2	8
(47) Wyoming	951	1	134	152
(48) Federal Offshore	2,862	(114)	397	245
(49) Miscellaneous[c]	35	7	2	6

a. Barrel = 42 U.S. gallons.
b. Indicates that the estimate is associated with a sampling error (95 percent confidence interval) which exceeds 20 percent of the estimated value.
c. Includes Arizona, Missouri, Nevada, New York, South Dakota, Tennessee, and Virginia.
Source: U.S. Department of Energy, Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, 1986 Annual Report.

TABLE 2-8 (Continued)
CHANGES IN ESTIMATED PROVED RESERVES OF CRUDE OIL, IN THE UNITED STATES BY STATE, DURING 1986

(Millions of Barrels)[a]

Changes in Reserves During 1986					
Extensions	New Field Discoveries	New Reservoir Discoveries in Old Fields	Production	Proved Reserves 12/31/86	
405	**48**	**81**	**2,973**	**26,889**	(1)
1	0	0	12	55	(2)
6	0	0	670	6,875	(3)
2	0	2	15	88	(4)
36	0	0	378	4,734	(5)
3	0	0	34	592	(6)
2	0	0	40	330	(7)
30	0	0	272	3,270	(8)
1	0	0	32	542	(9)
5	0	1	29	207	(10)
1	1	0	11	67	(11)
1	0	0	21	135	(12)
0	0	0	6[b]	32[b]	(13)
8	3	1	58	312	(14)
0	0	0	5[b]	31[b]	(15)
30	0	9	146	826	(16)
4	0	0	27	160	(17)
23	0	8	99	547	(18)
3	2	1	20	119	(19)
2	1	0	24	146	(20)
5	0	2	30	199	(21)
4	0	1	27	248	(22)
1	3	0	7[b]	45[b]	(23)
13	3	1	73	644	(24)
11	0	1	67	593	(25)
2	2	0	6	51	(26)
12	0	2	42	218	(27)
0	1	0	11	72	(28)
48	0	6	141	874	(29)
3	2	0	3[b]	26[b]	(30)
112	0	13	784	7,152	(31)
2	0	0	23	144	(32)
2	0	1	31	148	(33)
13	0	2	85	420	(34)
2	0	1	16	87	(35)
4	0	0	11	53	(36)
4	1	1	78	750	(37)
5	0	0	31	193	(38)
11	0	1	34	213	(39)
40	1	3	224	2,183	(40)
20	0	3	197	2,618	(41)
2	0	1	38	237	(42)
7	0	0	16	104	(43)
0	1	0	0	2	(44)
11	0	0	23	269	(45)
0	5	0	3[b]	37	(46)
11	0	4	105	849	(47)
92	27	39	343	2,715	(48)
1	0	0	6	33	(49)

TABLE 2–10
ESTIMATED ESTABLISHED REMAINING MARKETABLE RESERVES OF NATURAL GAS IN CANADA, BY PROVINCE, 1986[a]

(Millions of Cubic Feet)

Province	Remaining Reserves December 31, 1985	Change During Year	Remaining Reserves At December 31, 1986		
			Total[b]	Net Non-associated	Associated/ Dissolved
Canada	**98,811,812**	**(1,363,421)**	**97,448,391**	**85,548,799**	**11,899,592**
Total West Canada	**98,404,912**	**(1,580,678)**	**82,400,646**	**71,542,086**	**10,858,561**
Alberta	64,849,104	(2,735,182)	62,113,921	52,288,086	9,825,836
Arctic Islands	14,423,587	—	14,423,587	13,382,556	1,041,031
Br. Columbia	8,644,427	(115,035)	8,529,392	8,130,478	398,914
Mackenzie Delta	9,168,385	—	9,168,385	8,621,782	546,603
Mainland Territories	403,635	9,370	413,005	395,045	17,960
Saskatchewan	915,774	1,260,169	2,175,943	2,106,695	69,248
Total East Canada	**406,900**	**217,257**	**624,158**	**624,158**	**—**
Ontario	401,434	217,718	619,153	619,153	—
Other E. Canada	5,466	(461)	5,005	5,005	—

a. Volumes are calculated at a pressure base of 14.65 psia and at a standard temperature of 60°F.
b. Underground storage not included.
( ): Denotes negative volume.
Source: Same as Table 2–9.

TABLE 2-11
CHANGES IN ESTIMATED ESTABLISHED REMAINING MARKETABLE RESERVES OF NATURAL GAS IN CANADA, BY PROVINCE, DURING 1986[a]

(Millions of Cubic Feet)

Province	Remaining Reserves December 31, 1985	Gross Additions	Net Production[b]	Remaining Reserves December 31, 1986
Canada	**98,811,812**	**1,368,425**	**2,731,846**	**97,448,391**
Total West Canada	**98,404,912**	**1,156,989**	**2,737,666**	**82,400,646**
Alberta	64,849,104	(308,973)	2,426,209	62,113,921
Arctic Islands	14,423,587	—	—	14,423,587
Br. Columbia	8,644,427	130,901	245,936	8,529,392
Mackenzie Delta	9,168,385	—	—	9,168,385
Mainland Territories	403,635	15,440	6,069	413,005
Saskatchewan	915,774	1,319,621	59,452	2,175,943
Total East Canada	**406,900**	**211,436**	**(5,821)**	**624,158**
Ontario	401,434	211,365	(6,353)	619,153
Other E. Canada	5,466	71	532	5,005

a. Volumes are calculated at a pressure base of 14.65 psia and at a standard temperature of 60°F.
b. Includes net change in underground storage.
( ): Denotes negative volume.
Source: Same as Table 2-9.

SECTION 3
NATURAL GAS SUPPLY

	1986	% Change 86/85
Maximum Day Sendout (Trillions of Btu)	62.6	−18.5
Production (wet) (Trillions of Btu)	18,739	− 2.1*
Net Imports (Millions of cubic feet)	688,107	+23.1
Producing Gas Wells	250,457	+ 5.1*
New Gas Well Completions	7,599	−41.0**

*Percentage change based on preliminary data for both years.
**As estimated by the Energy Information Administration.

Beginning in January 1985, the method of reporting oil and gas well completions changed significantly. Because a substantial time lag exists between the date a well is actually completed and the date a report on the well is received by the American Petroleum Institute (API), publishing data on an "as reported" basis does not accurately reflect the timing of completion activity. A new methodology involves reporting completions on the basis of when the completions occurred. However, in some cases, it can take over two years before a well completion is reported to the API and reflected in their published data.

As a result, the years 1970–1984 have been restated in this and the prior edition of Gas Facts in order to reflect the new methodology (actual date of completion). Particularly in recent years, well completion data may not necessarily be comparable from year to year as a result of the constant updating to the well completion data provided by the API.

For those tables where both total U.S. and individual state data are published, the individual state data is "as reported" and for recent periods may be subject to significant revision. The total U.S. figures reflect *estimates* by API of the number of completion reports which will ultimately be received. As such, these U.S. totals should be revised minimally in future editions of *Gas Facts.*

Please refer to American Gas Association, *Gas Energy Review,* April 1986, Volume 14, Number 4 for further details.

TABLE 3-1
ANNUAL PRODUCTION OF FOSSIL ENERGY RESOURCES, AND ELECTRICITY FROM HYDROPOWER AND NUCLEAR POWER, IN THE UNITED STATES, 1960-1986[a]

(Trillions of Btu)

Year	Natural Gas Wet (unprocessed)	Crude Petroleum	Bituminous Coal and Lignite	Anthracite Coal	Hydro-power[b]	Nuclear[c]	Other[d]	Grand Total Energy
1960	13,822	14,935	10,886	478	1,578	5	e	41,704
1965	17,628	16,521	13,417	378	2,033	38	e	50,015
1970	24,154	19,772	14,820	247	2,630	229	e	61,852
1975	22,014	17,729	14,990	f	3,155	1,900	72	59,850
1976	21,807	17,262	15,654	f	2,976	2,111	81	59,891
1977[R]	21,892	17,454	15,755	f	2,333	2,702	82	60,218
1978	21,730	18,434	14,910	f	2,937	3,024	68	61,103
1979[R]	22,362	18,104	17,539	f	2,931	2,776	89	63,801
1980	22,161	18,249	18,597	f	2,900	2,739	114	64,761
1981	22,006	18,146	18,377	f	2,758	3,008	127	64,422
1982	20,446	18,309	18,639	f	3,256	3,131	108	63,890
1983	18,714	18,392	17,250	f	3,502	3,203	133	61,194
1984[R]	20,205	18,848	19,723	f	3,312	3,553	174	65,814
1985[R]	19,163	18,992	19,329	f	2,939	4,147	213	64,783
1986[P]	18,739	18,351	19,481	f	3,040	4,475	232	64,317

a. The 1986 unit heat values employed are: Anthracite, 11,215 Btu per pound; bituminous coal and lignite, 10,966 Btu per pound; petroleum approx. 5,800,000 Btu per barrel; natural gas dry 1,033 Btu per cubic foot; natural gas liquids obtained by using 90,286 Btu per gallon.
b. Hydropower output is converted to theoretical energy inputs calculated from national average heat rates for fossil-fueled steam-electric plants.
c. Nuclear power energy input conversion is calculated annually by the Energy Information Administration.
d. Includes geothermal power and electricity produced from wood and waste.
e. Not available.
f. Included in "Bituminous Coal and Lignite."
R-Revised. P-Preliminary.
Source: Prior to 1977 U.S. Bureau of Mines, for 1977 and beyond, data taken from U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review*.

TABLE 3-2
ANNUAL PRODUCTION OF FOSSIL ENERGY RESOURCES, AND ELECTRICITY FROM HYDROPOWER AND NUCLEAR POWER, IN THE UNITED STATES, 1960-1986

(Percentage)

Year	Natural Gas Wet (unprocessed)	Crude Petroleum	Bituminous Coal and Lignite	Anthracite Coal	Hydro-power	Nuclear	Other[a]	Grand Total Energy
1960	33.2	35.8	26.1	1.1	3.8	b	c	100.0
1965	35.2	33.0	26.8	0.8	4.1	0.1	c	100.0
1970	39.0	32.0	24.0	0.4	4.2	0.4	c	100.0
1975	36.8	29.6	25.0	d	5.3	3.2	.1	100.0
1976	36.4	28.8	26.2	d	5.0	3.5	.1	100.0
1977	36.4	29.0	26.1	d	3.9	4.5	.1	100.0
1978	35.6	30.2	24.4	d	4.8	4.9	.1	100.0
1979	35.0	28.4	27.5	d	4.6	4.4	.1	100.0
1980	34.2	28.2	28.7	d	4.5	4.2	.2	100.0
1981	34.1	28.2	28.5	d	4.3	4.7	.2	100.0
1982	32.0	28.6	29.2	d	5.1	4.9	.2	100.0
1983	30.6	30.1	28.2	d	5.7	5.2	.2	100.0
1984[R]	30.7	28.6	30.0	d	5.0	5.4	.3	100.0
1985[R]	29.6	29.3	29.8	d	4.5	6.4	.3	100.0
1986[P]	29.1	28.5	30.3	d	4.7	7.0	.4	100.0

a. Includes geothermal power and electricity produced from wood and waste.
b. Less than 0.05.
c. Not available.
d. Included in "Bituminous Coal and Lignite."
R-Revised. P-Preliminary.
Source: Same as Table 3-1.

TABLE 2-9
SUMMARY OF ANNUAL ESTIMATES OF RESERVES OF NATURAL GAS IN CANADA, 1965–1986[a]

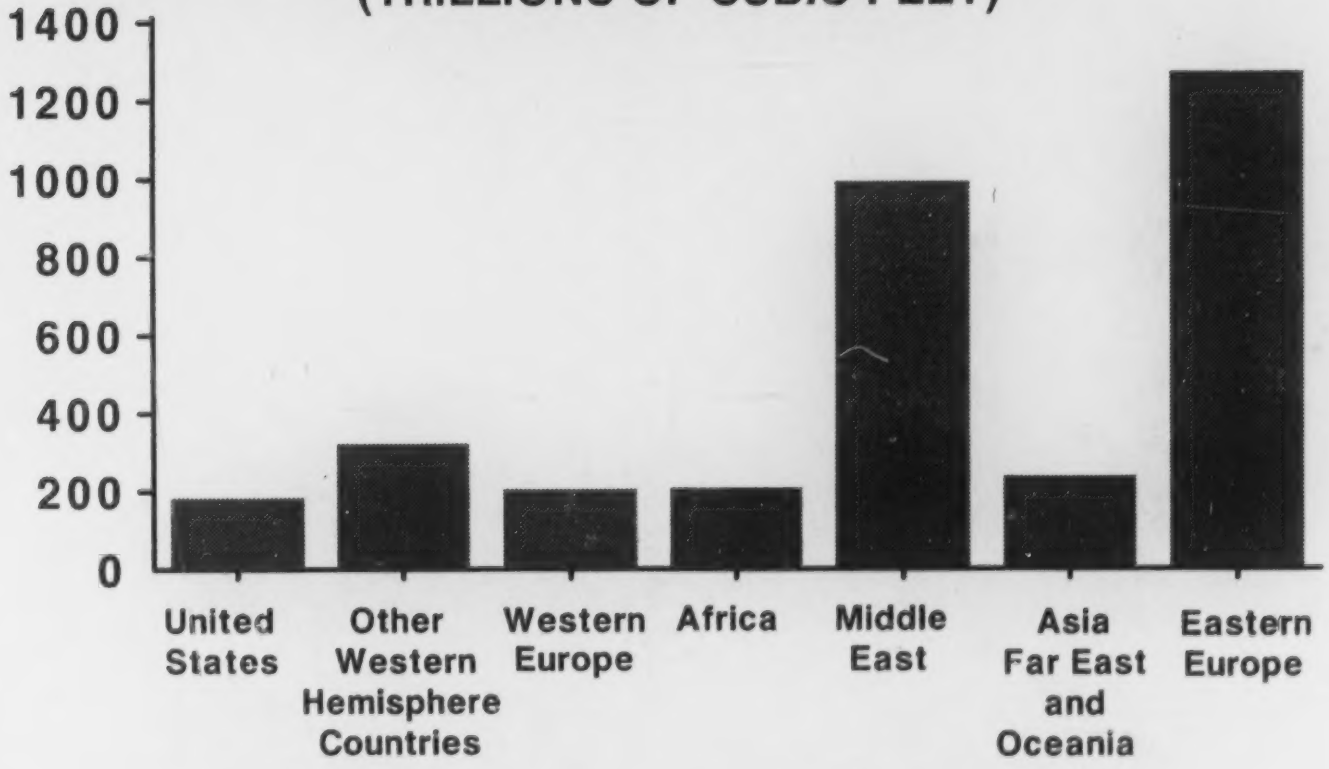
(Millions of Cubic Feet)

		Changes Due To								
	Reserves Remaining at Beginning of Year	Revisions	Revisions and Extensions	Extensions	Discoveries	Net Change in Underground Storage	Net Production	Reserves Remaining at End of Year	Change During Year	Probable Remaining at End of Year[b]
MARKETABLE GAS[c]										
1965	39,319,544	—	—	—	—	—	—	40,354,527	1,034,983	46,434,950
1970	51,950,995	493,804	—	2,516,126	193,682	20,205	1,799,184	53,375,628	1,424,633	60,289,373
1971	53,375,628	983,556	—	2,280,205	775,500	65	1,953,104	55,461,850	2,086,222	61,964,760
1972	55,461,850	(2,004,125)	—	1,243,897	487,538	(5,580)	2,247,798	52,935,782	(2,526,068)	60,546,769
1973	52,935,782	(167,054)	—	1,257,243	686,714	70,097	2,325,350	52,457,432	(478,350)	60,801,088
1974	52,457,432	2,953,557	—	3,487,099	193,056	10,428	2,393,486	56,708,086	4,250,554	64,459,133
1975	56,708,086	(177,606)	—	2,412,582	362,895	29,869	2,361,110	56,974,716	266,630	71,466,773
1976	56,974,716	(367,880)	—	3,587,990	639,345	(11,053)	2,541,176	58,281,942	1,307,226	76,359,832
1977	58,281,942	1,432,871	—	1,852,325	351,007	46,730	2,492,849	59,472,026	1,190,084	78,031,771
ESTABLISHED RESERVES										
1977	76,835,973	d	—	d	d	46,709	2,492,850	79,180,390	2,344,416	—
1978	79,180,390	2,026,962	—	2,534,342	1,018,734	3,443	2,340,406	82,423,467	3,243,077	—
1979	82,423,467	3,012,475	—	2,062,527	3,347,747	10,613	2,263,030	88,593,799	6,170,332	—
1980	88,594,374	62,043	—	1,408,320	900,050	(33,222)	2,486,016	88,445,549	(148,825)	—
1981	88,461,174	2,234,086	—	2,062,408	624,303	9,372	2,405,800	90,985,543	2,524,369	—
1982	90,985,541	1,750,541	—	1,425,609	214,029	73,450	2,466,895	91,982,275	996,734	—
1983	91,966,031	1,899,412	—	982,360	223,149	(114,502)	2,225,705	92,730,743	764,712	—
1984	92,730,742	d	—	d	d	d	2,804,502[e]	99,687,016	6,956,274	—
1985	99,145,610	d	—	d	d	d	2,909,576	98,275,160	(870,450)	—
1986	98,811,812	d	—	d	d	d	2,731,846	97,448,391	(1,363,421)	—

a. Volumes are calculated at a pressure base of 14.65 psia and at a standard temperature of 60°F.
b. Includes proved reserves.
c. For definition refer to Glossary.
d. Not available.
e. Includes net change in underground storage.
( ): Denotes negative volume.
Source: Canadian Petroleum Association.

CHART 2-4

WORLD ESTIMATED NATURAL GAS RESERVES, 1986
(TRILLIONS OF CUBIC FEET)

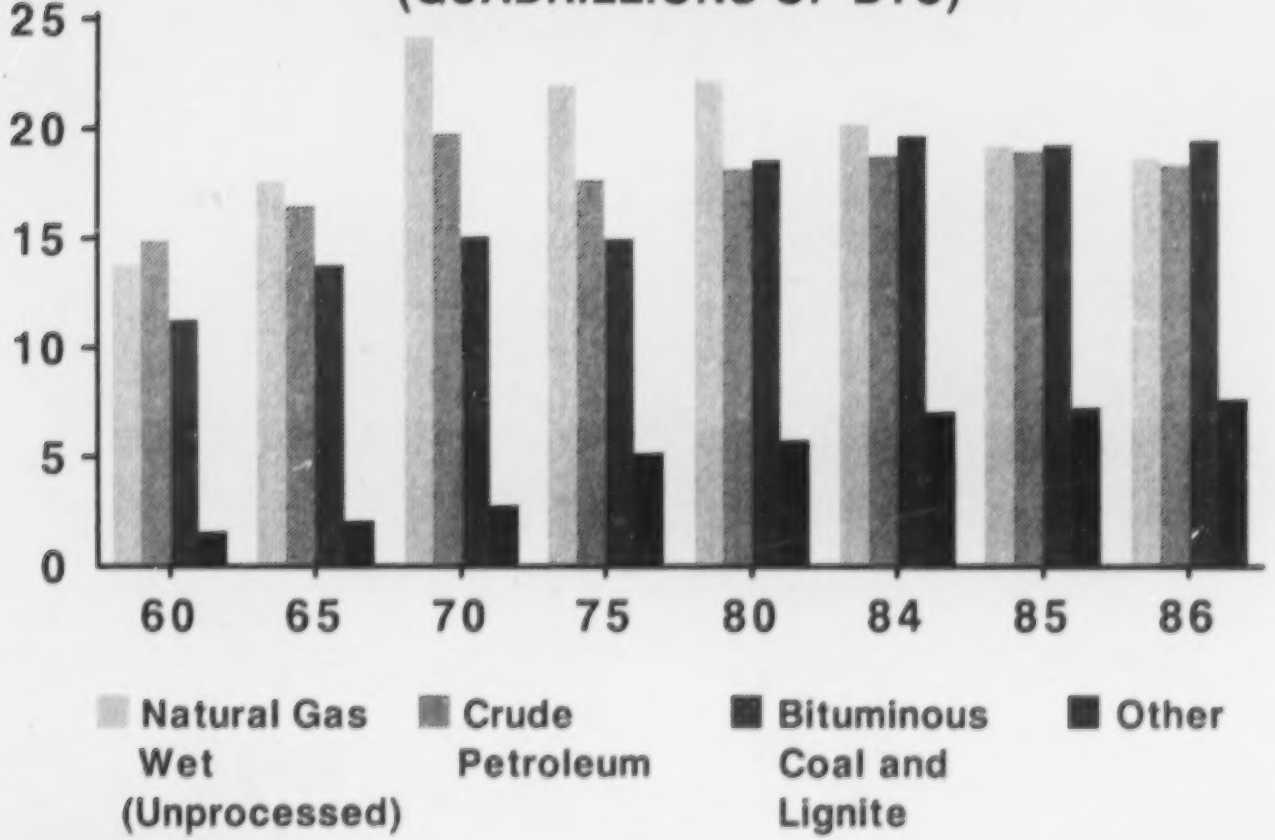


WORLD TOTAL 3416.2 TRILLION CUBIC FEET

SOURCE: WORLD OIL, August, 1986

CHART 3-1

UNITED STATES ENERGY PRODUCTION (QUADRILLIONS OF BTU)



REFERENCE: TABLE 3-1

TABLE 3-4
GAS UTILITY INDUSTRY, GAS SUPPLY AND DISPOSITION, 1960–1986[a]

(Trillions of Btu)

	Amount						
	1960	1965	1970[b]	1975	1980	1985[R]	1986
Supply—Produced and Purchased—Total	**10,544.6**	**13,315.9**	**18,829.5**	**16,811.5**	**17,276.4**	**14,164.1**	**12,613.8**
Natural Gas	10,544.6	13,315.9	18,661.8	16,490.1	16,935.3	14,016.1	12,519.8
Manufactured Gas	c	c	75.6	19.3	8.8	3.8	3.3
Liquefied Petroleum Gas	c	c	26.9	24.8	17.9	6.5	6.3
Substitute Natural Gas	c	c	1.2	261.3	198.4	76.4	44.0
Liquefied Natural Gas	c	c	0.0	8.4	79.6	24.7	6.4
Unclassified	c	c	64.0	7.6	36.4	36.6	34.0
Disposition—Total	**10,544.6**	**13,315.9**	**18,829.5**	**16,811.5**	**17,276.4**	**14,164.1**	**12,613.8**
Used in Production of Other Gases[d]	215.9	126.7	125.4	124.2	95.0	66.6	131.2
Company Use as a Fuel[e]	757.6	995.7	1,380.1	1,089.3	1,278.7	1,107.3	859.4
Sales to Ultimate Consumers	9,054.6	11,842.0	16,043.5	14,862.9	15,413.2	12,615.2	11,126.4
Other Deliveries (Net)	54.9	89.6	70.1	83.9	85.8	132.6	15.1
Placed in Storage (Net)	164.7	67.6	473.6	348.8	16.9	(326.2)	171.7
Unaccounted For[f]	296.9	194.3	736.8	302.4	386.8	568.6	310.0

a. Total supply figures involve some double counting. For production of supplementals see Table 3-16.
b. Includes Natural Gas only prior to 1970.
c. Not available.
d. Includes Natural Gas used for enriching, reforming and mixing.
e. Includes interdepartmental transfers.
f. Represents difference between supply and disposition, and should not be interpreted as a reliable measure of transmission efficiency.
R–Revised.

TABLE 3-5
GAS UTILITY INDUSTRY, MAXIMUM AND MINIMUM DAY SENDOUT[a] BY SOURCE OF SUPPLY, 1979–1986[b]

(Trillions of Btu)

	1979	1980	1981	1982	1983	1984	1985[R]	1986
Maximum Day Sendout—Total	**83.8**	**76.1**	**78.8**	**83.6**	**77.4**	**79.7**	**76.8**	**62.6**
Peak Shaving Facilities	2.0	1.3	2.5	3.4	2.5	1.8	2.8	1.4
Underground Storage Withdrawal	38.3	38.3	37.2	42.4	44.1	38.5	44.2	39.6
Regular Production and Purchases	43.5	36.5	39.1	37.8	30.8	39.4	29.8	21.6
Minimum Day Sendout—Total	**17.8**	**16.0**	**16.6**	**13.7**	**13.1**	**13.6**	**12.0**	**11.9**

a. Represents summation of all companies maximum/minimum day sendout, and is non-coincident.
b. Excludes sendout of pipeline companies to avoid duplication. Underground storage withdrawals include amounts from fields operated by both distributors and pipelines.
R–Revised.

TABLE 3-6
GROSS PRODUCTION OF NATURAL GAS, BY STATE, 1965-1985[a]

(Millions of Cubic Feet)

Division and State	1965	1970	1975	1980	1983	1984	1985
United States	**17,963,100**	**23,786,453**	**21,103,530**	**21,869,692**	**18,597,095**	**20,191,820**	**19,534,475**
New England	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**88,240**	**80,472**	**92,400**	**113,089**	**139,952**	**193,942**	**185,568**
New Jersey	0	0	0	0	0	0	0
New York	3,340	3,358	7,628	15,650	21,580	27,600	35,334
Pennsylvania	84,900	77,114	84,772	97,439	118,372	166,342	150,234
East North Central	**82,700**	**97,276**	**191,497**	**305,003**	**297,039**	**338,605**	**321,455**
Illinois	7,500	4,972	1,440	1,574	1,030	1,530	1,324
Indiana	2,400	153	346	463	135	394	367
Michigan	36,900	40,038	103,901	164,110	144,574	150,201	137,519
Ohio	35,900	52,113	85,810	138,856	151,300	186,480	182,245
Wisconsin	0	0	0	0	0	0	0
West North Central	**866,900**	**965,535**	**877,137**	**791,315**	**510,693**	**550,921**	**604,140**
Iowa	0	0	0	0	0	0	0
Kansas	806,800	904,475	846,164	737,246	436,044	467,382	514,415
Minnesota	0	0	0	0	0	0	0
Missouri	b	b	30	0	0	0	4
Nebraska	12,100	6,309	3,963	2,550	2,091	2,300	1,944
North Dakota	48,000	54,751	26,941	50,321	70,428	78,752	84,631
South Dakota	0	b	39	1,198	2,130	2,483	3,146
South Atlantic	**211,060**	**246,599**	**205,683**	**210,852**	**157,811**	**166,585**	**171,567**
Delaware	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	b	b	44,383	46,421	23,356	13,867	11,604
Georgia	0	0	0	0	0	0	0
Maryland	408	813	93	68	31	60	39
North Carolina	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0
Virginia	3,152	2,805	6,723	7,812	4,346	8,928	15,041
West Virginia	207,500	242,981	154,484	156,551	130,078	143,730	144,883
East South Central	**277,300**	**234,912**	**192,544**	**385,362**	**378,543**	**412,235**	**413,130**
Alabama	b	b	38,921	111,836	125,889	136,427	143,420
Kentucky	79,100	77,892	60,511	57,180	46,720	61,518	73,126
Mississippi	198,200	157,020	92,500	215,105	201,984	209,268	191,898
Tennessee	b	b	612	1,241	3,950	5,022	4,686
West South Central	**14,022,900**	**19,469,337**	**17,073,397**	**16,810,823**	**13,692,350**	**14,748,981**	**13,913,317**
Arkansas	104,000	183,650	121,518	127,696	153,911	162,744	181,959
Louisiana	4,764,300	8,076,157	7,242,408	7,008,489	5,379,359	5,888,043	5,218,098
Oklahoma	1,414,000	1,811,004	1,720,698	2,018,577	1,730,061	1,985,869	1,936,341
Texas	7,740,600	9,398,526	7,988,773	7,656,061	6,429,019	6,712,325	6,576,919
Mountain	**1,492,500**	**1,744,236**	**1,849,992**	**1,952,333**	**1,746,688**	**1,996,753**	**1,981,297**
Arizona	b	b	255	357	240	227	209
Colorado	155,200	115,157	174,145	191,806	172,842	180,616	189,565
Idaho	0	0	0	0	0	0	0
Montana	29,800	48,302	44,547	53,802	53,516	52,930	54,151
Nevada	0	0	0	0	0	0	0
New Mexico	956,500	1,141,889	1,227,200	1,168,049	917,158	978,236	926,174
Utah	92,100	73,386	77,607	87,766	63,158	184,606	213,302
Wyoming	258,900	365,502	326,238	450,553	539,774	600,138	597,896
Pacific	**917,800**	**945,099**	**620,880**	**1,300,915**	**1,674,019**	**1,783,798**	**1,944,001**
Alaska	12,800	217,854	253,227	893,759	1,164,602	1,206,370	1,343,553
California	905,000	727,245	367,653	407,151	509,414	574,638	596,368
Hawaii	0	0	0	0	0	0	0
Oregon	0	0	0	5	3	2,790	4,080
Washington	0	0	0	0	0	0	0
Other States	**3,700**	**2,987**	**0**	**0**	**0**	**0**	**0**

a. Includes gas (mostly residue gas) blown to the air, but does not include direct waste on producing properties, except where data is available.
b. Included in "Other States."
Source: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1985.

TABLE 3-7
NET WELLHEAD PRODUCTION OF NATURAL GAS, BY STATE, 1965-1985[a]

(Millions of Cubic Feet)

Division and State	1965	1970	1975	1980	1983	1984	1985
United States	**16,358,896**	**22,410,102**	**20,242,574**	**20,504,238**	**17,139,041**	**18,561,668**	**17,619,278**
New England	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**87,842**	**80,199**	**92,490**	**113,089**	**139,952**	**193,942**	**185,568**
New Jersey	0	0	0	0	0	0	0
New York	3,340	3,358	7,628	15,650	21,580	27,600	35,334
Pennsylvania	84,502	76,841	84,772	97,439	118,372	166,342	150,234
East North Central	**80,800**	**96,898**	**190,471**	**302,628**	**294,699**	**336,265**	**319,115**
Illinois	7,500	4,972	1,440	1,574	1,030	1,530	1,324
Indiana	2,400	153	346	463	135	394	367
Michigan	35,000	39,660	103,725	161,735	142,234	147,861	135,179
Ohio	35,900	52,113	84,960	138,856	151,300	186,480	182,245
Wisconsin	b	0	0	0	0	0	0
West North Central	**860,204**	**963,410**	**875,409**	**789,841**	**509,508**	**549,615**	**600,360**
Iowa	0	0	0	0	0	0	0
Kansas	806,683	902,668	844,471	735,772	435,172	466,447	513,387
Minnesota	0	0	0	0	0	0	0
Missouri	b	b	30	0	0	4	4
Nebraska	11,985	5,991	3,963	2,550	2,091	2,300	1,944
North Dakota	41,536	54,751	26,941	50,321	70,315	78,752	82,273
South Dakota	0	b	5	1,198	1,930	2,112	2,752
South Atlantic	**211,044**	**246,070**	**205,683**	**210,852**	**137,811**	**166,585**	**171,567**
Delaware	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	b	b	44,383	46,421	23,356	13,867	11,604
Georgia	0	0	0	0	0	0	0
Maryland	408	813	93	68	31	60	39
North Carolina	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0
Virginia	3,152	2,805	6,723	7,812	4,346	8,928	15,041
West Virginia	207,484	242,452	154,484	156,551	130,078	143,730	144,883
East South Central	**255,601**	**211,156**	**186,251**	**369,219**	**360,453**	**391,890**	**390,809**
Alabama	b	b	38,921	108,702	114,847	123,870	128,651
Kentucky	79,100	77,892	60,511	57,180	46,720	61,518	73,126
Mississippi	176,501	133,264	86,207	202,096	194,936	201,480	184,346
Tennessee	b	b	612	1,241	3,950	5,022	4,686
West South Central	**12,769,359**	**16,306,535**	**16,387,930**	**16,273,072**	**13,291,330**	**14,311,030**	**13,336,432**
Arkansas	83,845	181,577	117,555	112,202	128,535	137,385	155,923
Louisiana	4,589,349	7,942,365	7,116,104	6,962,775	5,357,763	5,850,063	5,038,715
Oklahoma	1,356,738	1,724,572	1,637,212	1,917,379	1,730,061	1,985,869	1,936,341
Texas	6,739,427	8,458,021	7,517,059	7,280,716	6,074,971	6,337,713	6,205,453
Mountain	**1,416,853**	**1,705,299**	**1,813,914**	**1,898,955**	**1,686,671**	**1,830,208**	**1,790,095**
Arizona	b	b	255	357	240	227	209
Colorado	131,342	112,930	174,145	191,610	172,454	180,522	188,817
Idaho	0	0	0	0	0	0	0
Montana	29,221	47,908	43,936	53,572	53,516	52,759	53,954
Nevada	0	0	0	0	0	0	0
New Mexico	945,794	1,141,889	1,219,072	1,154,992	903,399	965,716	911,181
Utah	72,306	45,633	57,160	87,766	63,158	77,137	86,145
Wyoming	238,190	356,939	319,346	410,658	493,904	553,847	549,789
Pacific	**673,493**	**798,000**	**490,516**	**546,582**	**698,617**	**782,133**	**825,332**
Alaska	7,331	146,384	170,671	235,408	281,718	300,799	327,642
California	666,162	651,616	319,845	311,169	416,896	478,544	493,610
Hawaii	0	0	0	0	0	0	0
Oregon	0	0	0	5	3	2,790	4,080
Washington	0	0	0	0	0	0	0
Other States	**3,700**	**2,535**	**0**	**0**	**0**	**0**	**0**

a. As defined by A.G.A. "Net Wellhead Production" equals "Gross Production" less gas for repressuring (see Table 3-3) and therefore includes natural gas liquids.
b. Included in "Other States."
Source: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1985.

TABLE 3-8
MARKETED PRODUCTION OF NATURAL GAS, BY STATE, 1965-1985[a]

(Millions of Cubic Feet)

Division and State	1965	1970	1975	1980	1983	1984	1985
United States	**16,039,753**	**21,920,642**	**20,108,661**	**20,378,787**	**17,044,081**	**18,453,756**	**17,524,496**
New England	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**87,801**	**80,199**	**92,304**	**113,082**	**136,208**	**191,542**	**181,795**
New Jersey	0	0	0	0	0	0	0
New York	3,340	3,358	7,628	15,643	17,836	25,200	31,561
Pennsylvania	84,461	76,841	84,676	97,439	118,372	166,342	150,234
East North Central	**77,877**	**95,967**	**188,859**	**299,195**	**291,375**	**332,941**	**318,791**
Illinois	7,396	4,850	1,440	1,574	1,030	1,530	1,324
Indiana	239	153	346	463	135	394	367
Michigan	34,558	38,851	102,113	158,302	138,910	144,537	131,855
Ohio	35,684	52,113	84,960	138,856	151,300	186,480	182,245
Wisconsin	0	0	0	0	0	0	0
West North Central	**839,751**	**940,922**	**871,006**	**781,124**	**507,992**	**546,964**	**596,667**
Iowa	0	0	0	0	0	0	0
Kansas	793,379	899,955	843,625	735,035	434,736	465,979	512,872
Minnesota	0	0	0	0	0	0	0
Missouri	b	87	30	0	0	4	4
Nebraska	10,720	5,991	2,565	2,550	2,091	2,300	1,944
North Dakota	35,652	34,889	24,786	42,346	69,319	76,734	79,289
South Dakota	b	0	0	1,193	1,846	1,947	2,558
South Atlantic	**210,976**	**246,070**	**205,683**	**210,175**	**157,614**	**166,524**	**171,583**
Delaware	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	b	0	44,383	45,744	23,159	13,833	11,590
Georgia	0	0	0	0	0	0	0
Maryland	408	813	93	68	31	60	39
North Carolina	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0
Virginia	3,152	2,805	6,723	7,812	4,346	8,901	15,041
West Virginia	207,416	242,452	154,484	156,551	130,078	143,730	144,883
East South Central	**245,801**	**204,614**	**172,697**	**349,417**	**349,965**	**380,199**	**385,284**
Alabama	b	627	37,814	105,527	113,053	122,041	127,224
Kentucky	78,976	77,892	60,511	57,180	46,720	61,518	73,126
Mississippi	166,825	126,031	74,345	185,469	186,242	191,618	180,248
Tennessee	b	64	27	1,241	3,950	5,022	4,686
West South Central	**12,507,167**	**17,922,286**	**16,298,056**	**16,195,435**	**13,236,287**	**14,251,542**	**13,279,819**
Arkansas	82,831	181,351	116,237	111,808	127,561	135,161	155,099
Louisiana	4,466,786	7,788,276	7,090,645	6,939,924	5,332,113	5,825,055	5,013,702
Oklahoma	1,320,995	1,594,943	1,605,410	1,891,824	1,730,061	1,985,869	1,936,341
Texas	6,636,555	8,357,716	7,485,764	7,251,879	6,046,552	6,305,457	6,174,677
Mountain	**1,399,156**	**1,669,891**	**1,801,478**	**1,889,983**	**1,672,185**	**1,818,697**	**1,776,781**
Arizona	b	1,101	208	214	132	45	83
Colorado	126,381	105,804	171,629	190,814	171,094	179,522	186,996
Idaho	0	0	0	0	0	0	0
Montana	28,105	42,705	40,734	51,867	51,967	51,474	52,494
Nevada	0	0	0	0	0	0	0
New Mexico	937,205	1,138,980	1,217,430	1,149,781	897,163	939,382	905,312
Utah	71,616	42,781	55,354	87,766	63,158	74,698	83,405
Wyoming	235,849	338,520	316,123	409,541	488,671	550,576	548,459
Pacific	**667,639**	**760,693**	**478,578**	**540,376**	**692,455**	**768,347**	**816,836**
Alaska	7,255	111,576	160,270	230,588	276,691	289,129	321,346
California	660,384	649,117	318,308	309,783	415,761	476,428	491,410
Hawaii	0	0	0	0	0	0	0
Oregon	0	0	0	5	3	2,790	4,080
Washington	0	0	0	0	0	0	0
Other States	**3,583**	**0**	**0**	**0**	**0**	**0**	**0**

a. Includes 199,063 million cubic feet of nonhydrocarbon gases in 1980, 208,492 million cubic feet in 1982, 221,937 million cubic feet in 1983, 224,118 million cubic feet in 1984, and 326,497 million cubic feet in 1985.

b. Included in "Other States."

Source: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1985.

TABLE 3-9
NATURAL GAS PRODUCTION PURCHASED BY ALL INTERSTATE NATURAL GAS PIPELINE COMPANIES, BY STATE, 1979-1985

(Millions of Cubic Feet)

Division and State	1979	1980	1981	1982	1983	1984	1985
Total United States	**11,535,967**	**11,604,272**	**11,959,310**	**10,933,412**	**9,696,902**	**10,421,625**	**8,917,751**
New England	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**34,422**	**44,577**	**70,818**	**80,820**	**74,779**	**82,081**	**109,281**
New Jersey	0	0	0	0	0	0	0
New York	5,385	2,729	8,606	8,167	9,187	14,368	40,121
Pennsylvania	29,037	41,848	62,212	72,653	65,592	67,713	69,160
East North Central	**25,474**	**44,858**	**47,535**	**50,278**	**57,895**	**53,984**	**75,082**
Illinois	136	241	195	476	234	217	1,219
Indiana	166	9,587	6,162	38	8	0	0
Michigan	0	0	0	0	0	0	0
Ohio	25,122	35,030	41,178	49,764	57,653	53,767	73,863
Wisconsin	0	0	0	0	0	0	0
West North Central	**672,123**	**589,922**	**499,186**	**341,751**	**336,984**	**405,312**	**431,203**
Iowa	0	0	0	0	0	0	0
Kansas	653,468	566,379	472,067	310,949	299,843	379,346	407,636
Minnesota	0	0	0	0	0	3,335	0
Missouri	0	0	0	0	0	0	0
Nebraska	3,645	3,322	3,561	2,944	3,004	3,547	991
North Dakota	14,168	19,103	22,390	25,996	32,834	18,267	21,647
South Dakota	842	1,118	1,168	1,862	1,303	817	929
South Atlantic	**157,408**	**165,947**	**175,378**	**162,179**	**139,396**	**161,704**	**209,172**
Delaware	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	17,821	14,996	9,659	7,724	6,385	2,915	2,769
Georgia	0	0	0	0	0	0	0
Maryland	79	71	59	37	31	60	35,616
North Carolina	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0
Virginia	8,587	7,818	8,897	6,905	4,323	8,976	14,251
West Virginia	130,921	143,062	156,763	147,513	128,857	149,753	156,536
East South Central	**161,859**	**195,980**	**216,027**	**201,350**	**201,611**	**227,437**	**194,620**
Alabama	17,310	36,592	40,867	38,953	30,079	33,653	36,101
Kentucky	40,859	47,555	50,042	38,527	32,661	47,238	45,458
Mississippi	103,690	111,833	125,086	123,586	135,058	142,509	108,984
Tennessee	0	0	32	284	3,813	4,037	4,077
West South Central	**8,982,014**	**9,068,369**	**9,346,583**	**8,689,062**	**7,413,344**	**8,189,459**	**6,629,637**
Arkansas	77,210	71,596	67,143	87,761	79,162	83,534	114,516
Louisiana	5,210,191	5,161,204	5,264,477	4,759,426	4,031,576	4,562,678	3,593,587
Oklahoma	944,622	953,838	1,001,138	1,118,021	888,113	986,368	824,866
Texas	2,749,991	2,881,731	3,013,825	2,723,854	2,414,493	2,555,879	2,096,668
Mountain	**1,502,667**	**1,494,619**	**1,603,783**	**1,407,972**	**1,272,693**	**1,302,648**	**1,268,756**
Arizona	0	0	0	0	0	0	0
Colorado	155,079	157,385	158,639	160,839	122,040	116,262	95,180
Idaho	0	0	524	78	0	0	0
Montana	36,908	30,458	33,701	31,842	31,658	24,351	18,021
Nevada	0	0	0	0	0	0	0
New Mexico	969,836	936,305	1,003,163	806,724	713,159	736,216	739,709
Utah	41,519	49,990	63,537	70,855	53,165	52,753	52,925
Wyoming	299,325	320,481	344,219	337,634	352,671	373,066	362,921
Pacific	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Source: U.S. Department of Energy, Energy Information Administration, *Gas Supplies of Interstate Natural Gas Pipeline Companies*, 1985.

TABLE 3-11
INTERSTATE MOVEMENTS AND MOVEMENTS ACROSS U.S. BORDERS OF NATURAL AND SUPPLEMENTAL GAS, 1985[a]

(Millions of Cubic Feet)

Division and State	Interstate Movements			Movements Across U.S. Borders		
	Receipts	Deliveries	Net	Receipts[b]	Deliveries[c]	Net
United States	**45,498,452**	**45,498,452**	**0**	**1,219,463**	**327,203**	**892,260**
New England	**601,985**	**289,655**	**312,330**	**28,872**	**0**	**28,872**
Connecticut	203,446	131,499	71,947	0	0	0
Maine	2,664	0	2,664	0	0	0
Massachusetts	243,676	47,050	196,626	23,659	0	23,659
New Hampshire	12,589	2,354	10,235	0	0	0
Rhode Island	139,610	108,552	31,058	0	0	0
Vermont	0	0	0	5,213	0	5,213
Middle Atlantic	**3,991,376**	**2,440,501**	**1,550,875**	**47,677**	**0**	**47,677**
New Jersey	953,145	590,915	362,230	0	0	0
New York	1,087,340	324,177	763,163	47,677	0	47,677
Pennsylvania	1,950,891	1,525,409	425,482	0	0	0
East North Central	**6,761,885**	**3,679,666**	**3,082,189**	**468**	**249,918**	**(249,450)**
Illinois	1,959,775	970,738	989,037	0	0	0
Indiana	1,437,123	989,109	448,014	0	0	0
Michigan	764,145	0	764,145	468	249,918	(249,450)
Ohio	1,948,185	1,384,582	563,603	0	0	0
Wisconsin	652,627	335,237	317,390	0	0	0
West North Central	**5,751,293**	**5,525,440**	**225,853**	**474,989**	**6,063**	**468,926**
Iowa	1,143,876	897,378	246,498	0	0	0
Kansas	1,334,222	1,498,697	(164,475)	0	0	0
Minnesota	394,360	613,634	(219,266)	474,989	6,063	468,926
Missouri	1,297,658	1,023,757	273,901	0	0	0
Nebraska	1,208,753	1,077,085	131,668	0	0	0
North Dakota	157,948	224,131	(66,183)	0	0	0
South Dakota	214,468	190,758	23,710	0	0	0
South Atlantic	**6,354,256**	**5,223,537**	**1,032,719**	**0**	**0**	**0**
Delaware	40,802	2,035	38,767	0	0	0
District of Columbia	29,344	0	29,344	0	0	0
Florida	273,348	297	273,051	0	0	0
Georgia	1,222,557	926,049	296,508	0	0	0
Maryland	810,397	664,606	145,791	0	0	0
North Carolina	819,112	681,309	137,803	0	0	0
South Carolina	930,594	819,112	101,482	0	0	0
Virginia	927,392	803,990	123,402	0	0	0
West Virginia	1,212,710	1,326,139	(113,429)	0	0	0
East South Central	**12,547,944**	**12,029,120**	**518,824**	**0**	**0**	**0**
Alabama	2,476,383	2,336,142	140,241	0	0	0
Kentucky	2,670,242	2,531,793	138,449	0	0	0
Mississippi	4,542,097	4,488,750	53,347	0	0	0
Tennessee	2,859,222	2,672,435	186,787	0	0	0
West South Central	**4,660,511**	**11,576,396**	**(6,915,885)**	**0**	**394**	**(394)**
Arkansas	2,099,656	2,041,747	57,909	0	0	0
Louisiana	1,297,299	4,836,028	(3,538,729)	0	0	0
Oklahoma	596,415	1,778,481	(1,182,066)	0	0	0
Texas	667,141	2,920,140	(2,252,999)	0	394	(394)
Mountain	**2,751,682**	**4,021,416**	**(1,269,766)**	**966,797**	**13,961**	**952,796**
Arizona	1,249,968	1,066,147	183,821	0	1,813	(1,813)
Colorado	427,666	387,305	40,361	0	0	0
Idaho	68,640	440,434	(371,794)	411,380	0	411,380
Montana	38,734	172,755	(134,021)	155,377	12,148	143,229
Nevada	42,181	2,334	39,847	0	0	0
New Mexico	697,489	1,392,041	(694,554)	0	0	0
Utah	56,766	43,794	12,972	0	0	0
Wyoming	170,208	516,606	(346,398)	0	0	0
Pacific	**2,178,880**	**712,919**	**1,462,661**	**100,702**	**56,867**	**43,835**
Alaska	0	0	0	0	54,710	(54,710)
California	1,340,239	0	1,340,239	0	0	0
Hawaii	0	0	0	0	0	0
Oregon	402,173	321,928	80,245	0	0	0
Washington	433,168	390,991	42,177	100,702	2,157	98,545

a. Supplemental Gas Supplies totaled 109,977 million cubic feet. See Table 3-15.
b. For detail by country see Table 3-13.
c. For detail by country see Table 3-12.
Source: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual* 1985.

TABLE 3-12
EXPORTS OF NATURAL GAS FROM THE UNITED STATES, 1960-1986

(Millions of Cubic Feet)

Year	Total	Canada	Mexico	Japan[a]
1960	11,332	5,759	5,573	0
1965	26,132	17,979	8,153	0
1966	24,639	20,281	4,358	0
1967	81,614	70,456	11,158	0
1968	93,745	81,647	12,098	0
1969	51,304	34,931	13,391	2,982
1970	69,831	10,878	14,678	44,257
1971	80,212	14,349	15,632	50,231
1972	78,014	15,553	14,579	47,882
1973	77,169	14,824	13,999	48,346
1974	76,789	13,263	13,268	50,258
1975	72,675	10,219	9,454	53,002
1976	64,710	7,506	7,425	49,779
1977	55,626	31	3,940	51,655
1978	52,533	66	4,033	48,434
1979	55,673	76	4,308	51,289
1980	48,731	113	3,886	44,732
1981	59,372	106	3,337	55,929
1982	51,728	162	1,705	49,861
1983	54,639	136	1,646	52,857
1984	54,753	127	1,786	52,840
1985	55,268	178	2,207	52,883
1986	61,271	9,203	1,896	50,172

a. LNG exports from Alaska.
Source: U.S. Department of Energy, Energy Information Administration, *Natural Gas Monthly*.

TABLE 3-13
IMPORTS OF NATURAL GAS TO THE UNITED STATES, 1960-1986

(Millions of Cubic Feet)

Year	Total	Canada	Mexico	Algeria[a]
1960	155,646	108,657	46,989	0
1965	456,394	404,686	51,708	0
1966	479,780	430,189	49,591	0
1967	564,226	513,255	50,971	0
1968	651,885	604,462	47,423	0
1969	726,951	680,106	46,845	0
1970	820,780	778,687	41,336	757
1971	934,548	912,426	20,689	1,433
1972	1,019,496	1,009,323	8,140	2,032
1973	1,032,901	1,027,883	1,632	3,388
1974	959,284	959,063	222	0
1975	953,008	948,115	0	4,893
1976	963,768	953,613	0	10,155
1977	1,011,002	997,295	2,384	11,324
1978	965,545	881,123	0	84,422
1979	1,253,383	1,000,775	0	252,608
1980	984,767	796,507	102,410	85,850
1981	903,949	762,113	105,013	36,824
1982	933,336	783,607	94,794	55,136
1983	918,407	711,923	75,361	131,124
1984	843,080	755,368	51,502	36,191
1985	949,715	926,056	0	23,659
1986	749,378	747,709	0	0

a. Quantities represent total LNG imports from overseas into the U.S.
Source: U.S. Department of Energy, Energy Information Administration, *Natural Gas Monthly*.

TABLE 3-14
NATURAL GAS DELIVERED TO CONSUMERS BY STATE, 1965-1985[a]

(Millions of Cubic Feet)

Division and State	1965	1970	1975	1980	1983	1984	1985[b]
United States	**13,622,960**	**19,010,462**	**17,558,353**	**18,216,233**	**15,366,621**	**16,344,893**	**15,811,130**
New England	**175,051**	**242,597**	**254,070**	**297,506**	**310,288**	**337,897**	**343,198**
Connecticut	60,722	60,526	63,968	73,513	74,211	80,924	77,864
Maine	0	20,691[c]	13,534[c]	2,166	2,419	2,444	2,520
Massachusetts	113,994	146,226	153,461	181,912	190,782	207,564	217,503
New Hampshire	4,084	d	d	9,668	9,635	10,506	10,545
Rhode Island	16,251	25,066	23,107	27,477	28,884	31,537	29,733
Vermont	0	d	d	3,991	4,354	4,862	4,993
Middle Atlantic	**1,387,337**	**1,772,600**	**1,461,698**	**1,818,067**	**1,732,089**	**1,837,082**	**1,723,100**
New Jersey	209,306	321,910	243,714	339,358	404,398	415,952	376,982
New York	540,672	707,219	573,699	733,800	716,688	784,243	738,031
Pennsylvania	607,359	743,471	634,285	744,909	611,203	636,987	608,087
East North Central	**2,706,665**	**3,943,966**	**3,718,831**	**3,628,619**	**3,054,656**	**3,231,363**	**3,090,195**
Illinois	742,906	1,145,379	1,080,787	1,074,771	933,921	1,017,180	946,614
Indiana	349,827	534,214	467,736	480,346	421,252	446,210	428,124
Michigan	548,390	795,317	665,539	846,278	680,453	698,672	690,493
Ohio	866,589	1,037,801	944,923	883,613	732,686	767,095	719,393
Wisconsin	198,953	331,255	359,846	343,611	296,345	302,106	305,571
West North Central	**1,390,950**	**1,826,008**	**1,686,091**	**1,605,928**	**1,149,713**	**1,199,852**	**1,165,391**
Iowa	236,443	330,363	329,700	256,900	212,597	236,314	215,553
Kansas	385,364	481,483	402,273	411,694	276,362	287,328	274,900
Minnesota	267,561	334,872	327,319	276,717	236,401	249,040	251,243
Missouri	333,219	416,783	362,130	312,872	254,823	259,904	255,636
Nebraska	159,359	207,550	207,371	193,283	123,134	129,745	120,496
North Dakota	15,069	18,645	24,797	21,660	21,368	23,109	22,682
South Dakota	26,935	36,309	32,502	24,002	25,138	24,412	24,881
South Atlantic	**909,869**	**1,465,035**	**1,268,171**	**1,390,415**	**1,286,668**	**1,303,188**	**1,221,820**
Delaware	17,969	26,421	18,663	29,797	34,873	42,957	38,488
District of Columbia	e	e	e	27,868	28,952	29,094	28,526
Florida	182,093	332,225	271,471	304,638	295,623	291,128	278,666
Georgia	206,560	325,650	322,383	307,827	289,576	301,331	276,446
Maryland	113,945[f]	179,784[f]	163,462[f]	156,300	143,527	156,868	148,589
North Carolina	71,473	145,076	111,276	147,448	130,793	138,229	129,081
South Carolina	84,564	156,599	120,306	139,214	98,998	105,842	95,225
Virginia	88,907	128,692	118,083	149,980	135,611	136,757	134,589
West Virginia	144,360	170,830	142,505	127,343	100,719	101,033	92,210
East South Central	**727,868**	**1,089,983**	**809,664**	**856,158**	**741,704**	**798,830**	**727,083**
Alabama	216,998	278,414	245,287	242,793	203,687	213,516	202,901
Kentucky	142,438	209,991	182,781	180,368	151,187	162,985	149,102
Mississippi	199,603	293,154	183,807	219,828	205,222	228,840	195,058
Tennessee	178,806	228,424	197,789	213,169	183,608	193,489	179,942
West South Central	**3,848,796**	**5,545,215**	**5,331,025**	**5,873,159**	**4,627,354**	**4,967,311**	**4,720,819**
Arkansas	255,657	399,338	341,803	280,319	194,079	193,694	174,991
Louisiana	857,118	1,482,273	1,435,686	1,523,691	1,090,109	1,241,890	1,086,006
Oklahoma	389,314	475,974	585,387	639,643	525,165	533,713	473,906
Texas	2,346,727	3,227,628	3,099,149	3,449,507	2,818,001	2,998,095	2,985,916
Mountain	**797,368**	**1,020,744**	**982,840**	**842,444**	**668,119**	**693,082**	**657,276**
Arizona	136,297	168,994	139,130	144,511	102,807	107,434	112,228
Colorado	219,602	277,739	294,760	241,765	195,702	211,752	200,976
Idaho	33,831	42,367	56,182	44,835	32,412	34,977	36,343
Montana	64,320	81,992	79,441	54,460	42,614	42,914	42,879
Nevada	27,679	52,558	61,251	58,284	41,830	43,173	39,087
New Mexico	130,072	191,818	172,638	146,577	100,727	101,869	78,453
Utah	105,526	120,814	116,620	106,647	104,429	106,188	106,915
Wyoming	41,043	84,462	62,818	45,363	47,578	44,775	42,695
Pacific	**1,741,087**	**2,392,407**	**2,055,063**	**2,053,937**	**1,816,041**	**1,976,435**	**2,163,360**
Alaska	5,917	41,672	66,815	122,966	141,116	140,535	143,470
California	1,572,367	2,017,393	1,727,729	1,729,650	1,502,575	1,633,122	1,806,398
Hawaii	0	0	0	3,131	2,660	2,375	2,483
Oregon	55,303	89,776	101,980	73,083	64,042	75,998	78,297
Washington	107,420	143,566	158,479	125,107	105,639	124,405	131,712

a. Includes deliveries made directly to end users in addition to gas utility sales as shown in Table 6-7.
b. Includes 126,363 million cubic feet (MMcf) of Supplemental Gas Supplies, less 126,497 MMcf of Nonhydrocarbon Gases.
c. Includes New Hampshire and Vermont.
d. Included in Maine.
e. Included in Maryland.
f. Includes District of Columbia.
Sources: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1985.

TABLE 3-3
SUPPLY AND DISPOSITION OF GAS IN THE UNITED STATES, 1960–1985

(Millions of Cubic Feet)

	Gross Production[a]						Disposition of Marketed Production									
Year	Gas Wells	Oil Wells	Total	Repressuring	Vented and Flared	Marketed Production[b]	Extraction Loss	Lease and Plant Fuel	Net Change in Storage	Pipeline Fuel	Unaccounted For	Nonhydrocarbon Gases	Domestic Dry Production For Sale	Net Imports	Supplemental Supplies	Delivered to Consumers[c]
1960	10,853,426	4,234,485	15,087,911	1,753,996	562,877	12,771,038	1,779,671		131,694	347,075	274,231	d	10,238,367	144,314	d	10,382,681
1965	13,523,600	4,439,500	17,963,100	1,604,204	319,143	16,039,753	1,909,697		118,115	500,524	318,711	d	13,192,706	430,262	d	13,622,968
1966	13,893,921	5,139,918	19,033,839	1,451,516	375,695	17,206,628	1,772,708		68,855	535,353	401,203	d	14,428,509	455,141	d	14,883,650
1967	15,346,853	4,904,923	20,251,776	1,590,574	489,877	18,171,325	784,534	1,140,966	184,829	575,752	296,214	d	15,189,030	482,612	d	15,671,642
1968	16,539,925	4,785,075	21,325,000	1,486,092	516,508	19,322,400	827,877	1,237,131	95,539	590,965	325,062	d	16,245,826	558,140	d	16,803,966
1969	17,489,415	5,189,780	22,679,195	1,455,205	525,750	20,698,240	866,560	1,345,648	119,500	630,962	331,587	d	17,403,983	675,647	d	18,079,630
1970	18,594,658	5,191,795	23,786,453	1,376,351	489,460	21,920,642	906,413	1,398,758	398,160	722,166	227,650	d	18,267,495	750,967	d	19,018,462
1971	18,925,136	5,162,895	24,088,031	1,310,458	284,561	22,493,012	883,127	1,413,650	331,768	742,592	338,999	d	18,782,876	854,336	d	19,637,212
1972	19,042,592	4,973,517	24,016,109	1,236,292	248,119	22,531,698	907,993	1,455,563	135,734	766,156	328,002	d	18,938,250	941,483	d	19,879,733
1973	19,371,600	4,695,602	24,067,202	1,171,361	248,292	22,647,549	916,551	1,495,915	441,504	728,177	195,863	d	18,869,539	955,732	d	19,825,271
1974	18,669,212	4,180,581	22,849,793	1,079,890	169,381	21,600,522	887,490	1,477,386	83,663	668,792	288,731	d	18,194,460	882,495	d	19,076,955
1975	17,380,293	3,723,237	21,103,530	860,956	133,913	20,108,661	872,282	1,396,277	344,054	582,963	235,068	d	16,678,020	880,333	d	17,558,353
1976	17,190,655	3,753,123	20,943,778	859,410	131,930	19,952,438	854,086	1,634,355	(165,327)	548,323	216,240	d	16,864,760	899,058	d	17,763,818
1977	17,415,983	3,681,088	21,097,071	934,801	136,807	20,025,463	862,563	1,659,145	556,631	532,669	41,063	d	16,373,392	955,375	d	17,328,767
1978	17,394,213	3,914,602	21,308,815	1,181,432	153,350	19,974,033	852,130	1,647,911	120,237	530,451	287,201	d	16,536,103	913,013	d	17,449,116
1979	18,033,879	3,849,474	21,883,353	1,245,074	167,019	20,471,260	807,845	1,498,530	248,034	600,964	372,330	d	16,943,557	1,197,710	d	18,141,267
1980	17,572,526	4,297,166	21,869,692	1,365,454	125,451	20,378,787	776,605	1,026,438	(23,269)	634,622	639,559	199,063	17,125,769	935,874	154,590	18,216,233
1981	17,336,862	4,250,591	21,587,453	1,311,735	98,017	20,177,701	774,562	927,591	297,430	642,325	500,501	221,878	16,813,414	844,826	175,702	17,833,942
1982	15,802,614	4,407,314	20,209,928	1,388,392	93,365	18,728,171	761,942	1,109,398	308,199	596,411	474,736	208,492	15,268,993	881,441	144,811	16,295,245
1983	14,146,668	4,450,426	18,597,095	1,458,054	94,962	17,044,081	789,632	978,249	(447,299)	490,042	642,061	221,937	14,369,459	865,268	131,894	15,366,621
1984	15,505,073	4,686,746	20,191,820	1,630,152	107,913	18,453,755	837,867	1,076,881	196,835	528,754	142,600	224,118	15,446,700	788,216	109,977	16,344,893
1985	14,528,14[illegible]	5,006,326	19,534,475	1,915,197	94,778	17,524,500	816,370	966,047	(234,756)	503,766	354,065	326,497	14,792,511	892,256	126,363	15,811,130

a. Includes gas (mostly residue gas) blown to the air but does not include direct waste on producing properties, except where data is available.
b. "Marketed Production" equals "Total Gross Production" less "Repressuring" and "Vented and Flared." It includes an allowance for natural gas liquids content in the natural gas and nonhydrocarbon gases.
c. Defined as Domestic Dry Production For Sale plus Net Imports plus Supplemental Gas Supplies. See Table 3-16 for details on Supplemental Gas Supplies.
d. 1980 is the first year this data is available.
( ): Denotes negative.
Sources: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1985.
Note: 1986 data reported by U.S. Department of Energy, *Monthly Energy Review*, February 1987 is as follows: "Marketed Production—16,809,000 million of cubic feet (MMcf); "Net Imports"—699,000 MMcf; "Net Change in Underground Storage"—plus 121,000 MMcf.

TABLE 3-10
TOTAL OFFSHORE PRODUCTION OF NATURAL GAS AND PERCENT STATE/FEDERALLY CONTROLLED, BY STATE, 1960–1986

	Alaska			California			Louisiana			Texas			Total		
		Percent			Percent			Percent			Percent			Percent	
Year	MMcf	State	OCS	MMcf	State	OCS	MMcf	State	OCS	MMcf	State	OCS	MMcf	State	OCS
1960	—	—	—	1,113	100	—	376,093	27	73	30,960	100	—	408,166	33	67
1965	11	100	—	40,770	100	—	862,738	25	75	27,520	100	—	931,038	31	69
1966	1,200	100	—	46,839	100	—	1,248,237	23	77	63,682	29	71	1,359,958	26	74
1967	9,046	100	—	46,732	100	—	1,482,622	27	73	160,798	22	78	1,699,198	30	70
1968	25,807	100	—	86,565	99	1	1,906,483	26	74	300,689	29	71	2,319,543	34	66
1969	43,243	100	—	83,904	94	6	2,380,225	23	77	238,056	47	53	2,745,429	29	71
1970	83,140	100	—	71,121	83	17	2,868,466	21	79	264,661	50	50	3,287,388	26	74
1971	86,326	100	—	61,448	74	26	3,207,475	18	82	235,600	67	33	3,590,850	23	77
1972	76,819	100	—	44,781	78	22	3,485,003	17	83	277,282	47	53	3,883,885	22	78
1973	74,655	100	—	37,883	81	19	3,612,878	15	85	251,038	41	59	3,976,454	19	81
1974	74,672	100	—	34,505	84	16	3,867,751	13	87	269,577	41	59	4,246,505	17	83
1975	76,295	100	—	27,272	85	15	3,840,631	13	87	220,530	44	56	4,164,727	17	83
1976	74,143	100	—	22,459	84	16	4,012,801	13	87	205,993	55	45	4,315,396	17	83
1977	77,540	100	—	17,527	81	19	4,133,610	12	88	268,250	68	32	4,496,927	17	83
1978	74,910	100	—	17,668	80	20	4,639,460	11	89	402,000	42	58	5,134,039	15	85
1979	73,792	100	—	16,417	82	18	4,635,487	10	90	719,208	29	71	5,444,904	14	86
1980	64,543	100	—	16,182	81	19	4,422,492	9	91	879,020	29	71	5,382,236	14	86
1981	72,307	100	—	26,237	51	49	4,480,934	8	92	966,983	24	76	5,546,462	12	88
1982	68,372	100	—	31,758	44	56	4,163,089	9	91	1,104,987	22	78	5,368,207	13	87
1983	68,837	100	—	29,878	46	54	3,490,146	9	91	998,951	15	85	4,587,812	12	88
1984	68,688	100	—	41,643	33	67	3,892,103	8	92	1,043,384	11	89	5,045,819	10	90
1985[R]	62,796	100	—	68,647	28	72	3,346,856	7	93	943,057	11	89	4,421,357	9	91
1986[P]	63,351	100	—	60,942	30	70	3,155,961	7	93	1,093,497	10	90	4,373,751	10	90

R—Revised. P—Preliminary.
Source: U.S. Department of the Interior, Minerals Management Service, *Federal Offshore Statistics.*
Note: Totals may not add due to independent rounding.

TABLE 3-15
TRANSPORTATION VOLUMES DELIVERED TO END USERS, 1982-1985[a]

(MMCF)

Division and State	1982		1983		1984		1985	
	Industrial	Electric Generation	Industrial	Electric Generation	Industrial	Electric Generation	Industrial	Electric Generation
United States	**867,124**	**558,491**	**1,087,737**	**584,181**	**1,559,503**	**910,852**	**1,839,611**	**715,121**
New England	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**24,940**	**0**	**36,391**	**89**	**66,041**	**7,806**	**90,997**	**13,005**
New Jersey	2,847	0	2,589	0	6,730	6,638	12,333	4,287
New York	0	0	2,658	89	4,317	1,168	8,794	8,718
Pennsylvania	22,093	0	31,144	0	54,994	0	69,870	0
East North Central	**25,890**	**0**	**68,020**	**0**	**129,485**	**0**	**237,072**	**0**
Illinois	0	0	5,151	0	23,480	0	57,025	0
Indiana	821	0	4,536	0	10,798	0	33,802	0
Michigan	0	0	506	0	4,071	0	22,816	0
Ohio	25,069	0	57,827	0	91,136	0	119,347	0
Wisconsin	0	0	0	0	0	0	4,082	0
West North Central	**1,102**	**481**	**995**	**622**	**1,092**	**615**	**2,668**	**306**
Iowa	0	0	0	0	0	0	169	0
Kansas	1,102	481	995	622	834	615	1,385	306
Minnesota	0	0	0	0	0	0	0	0
Missouri	0	0	0	0	35	0	805	0
Nebraska	0	0	0	0	0	0	257	0
North Dakota	0	0	0	0	147	0	52	0
South Dakota	0	0	0	0	76	0	0	0
South Atlantic	**7,678**	**71,139**	**18,138**	**67,673**	**47,904**	**58,126**	**91,804**	**49,699**
Delaware	0	0	0	0	2,698	0	5,921	0
District of Columbia	0	0	0	0	0	0	0	0
Florida	7,322	70,840	5,154	67,673	3,025	57,746	4,575	49,110
Georgia	0	0	0	0	0	0	11,080	0
Maryland	0	299	4,745	0	22,081	0	30,165	0
North Carolina	126	0	1,816	0	4,390	380	8,861	589
South Carolina	229	0	2,217	0	1,819	0	1,106	0
Virginia	0	0	179	0	2,885	0	12,446	0
West Virginia	1	0	4,027	0	11,006	0	17,650	0
East South Central	**65,524**	**5,241**	**56,745**	**16,371**	**66,950**	**11,617**	**86,838**	**13,296**
Alabama	28,602	1,534	17,518	1,142	17,656	229	26,554	853
Kentucky	0	0	632	0	1,669	0	5,137	0
Mississippi	36,922	3,707	38,595	15,229	47,395	11,388	35,935	12,443
Tennessee	0	0	0	0	230	0	19,212	0
West South Central	**716,374**	**453,585**	**879,547**	**475,256**	**1,195,858**	**804,657**	**1,264,426**	**615,127**
Arkansas	4,177	0	3,778	0	15,960	0	29,546	0
Louisiana	333,467	146,188	317,906	151,110	419,444	130,889	368,603	108,660
Oklahoma	468	196,798	0	204,262	523	197,867	26,846	179,901
Texas	378,262	110,599	557,863	119,884	759,931	475,901	839,431	326,566
Mountain	**4,690**	**15,593**	**4,789**	**11,854**	**6,375**	**15,436**	**17,574**	**8,551**
Arizona	0	8,372	0	4,462	0	6,937	1,428	0
Colorado	0	0	124	0	476	0	4,717	0
Idaho	4,690	0	3,543	0	4,066	0	4,743	0
Montana	0	0	677	0	1,118	0	761	0
Nevada	0	0	0	0	0	0	0	0
New Mexico	0	7,221	0	7,392	66	8,499	64	8,551
Utah	0	0	0	0	0	0	0	0
Wyoming	0	0	445	0	649	0	5,861	0
Pacific	**20,924**	**12,452**	**23,114**	**12,315**	**45,799**	**12,595**	**48,231**	**15,137**
Alaska	18,753	12,370	20,131	12,092	19,293	12,361	20,493	15,015
California	0	82	1,065	223	23,785	234	23,762	122
Hawaii	0	0	0	0	0	0	0	0
Oregon	2,091	0	1,752	0	2,586	0	3,264	0
Washington	80	0	166	0	135	0	712	0

a. Is part of the total deliveries to end users as shown in Table 3-14.
Source: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual.*

SUPPLY

TABLE 3-16

SUPPLEMENTAL GAS SUPPLIES BY STATE, 1985

(Millions of Cubic Feet)

Division and State	Total	Synthetic Natural Gas	Propane-Air	Refinery Gas	Other[a]
United States	**126,358**	**91,074**	**4,123**	**13,404**	**17,757**
New England	**4,650**	**2,766**	**1,865**	**19**	**0**
Connecticut	343	0	343	0	0
Maine	0	0	0	0	0
Massachusetts	3,668	2,766	883	19	0
New Hampshire	509	0	509	0	0
Rhode Island	130	0	130	0	0
Vermont	0	0	0	0	0
Middle Atlantic	**15,439**	**1,078**	**390**	**12,371**	**1,600[b,c]**
New Jersey	13,421	391	77	12,371	582[b]
New York	1,797	687	92	0	1,018[c]
Pennsylvania	221	0	221	0	0
East North Central	**49,763**	**44,002**	**428**	**893**	**4,440[d,e]**
Illinois	19,805	19,668	137	0	0
Indiana	2,711	0	159	893	1,659[d]
Michigan	2,789	0	8	0	2,781[e]
Ohio	24,444	24,334	110	0	0
Wisconsin	14	0	14	0	0
West North Central	**43,466**	**40,370**	**363**	**0**	**2,733[c]**
Iowa	45	0	0	0	45[c]
Kansas	0	0	0	0	0
Minnesota	11	0	11	0	0
Missouri	351	0	351	0	0
Nebraska	2,689	0	1	0	2,688
North Dakota	40,370	40,370	0	0	0
South Dakota	f	0	f	0	0
South Atlantic	**1,053**	**199**	**733**	**121**	**0**
Delaware	12	0	12	0	0
District of Columbia	0	0	0	0	0
Florida	3	0	3	0	0
Georgia	121	0	121	0	0
Maryland	373	130	122	121	0
North Carolina	43	0	43	0	0
South Carolina	87	0	87	0	0
Virginia	414	69	345	0	0
West Virginia	0	0	0	0	0
East South Central	**54**	**4**	**50**	**0**	**0**
Alabama	14	0	14	0	0
Kentucky	4	0	4	0	0
Mississippi	0	0	0	0	0
Tennessee	36	0	32	0	0
West South Central	**9**	**0**	**9**	**0**	**0**
Arkansas	0	0	0	0	0
Louisiana	0	0	0	0	0
Oklahoma	0	0	0	0	0
Texas	9	0	9	0	0
Mountain	**9,254**	**0**	**270**	**0**	**8,984[e]**
Arizona	0	0	0	0	0
Colorado	8,934	0	17	0	8,917[e]
Idaho	0	0	0	0	0
Montana	0	0	0	0	0
Nevada	4	0	4	0	0
New Mexico	0	0	0	0	0
Utah	0	0	0	0	0
Wyoming	316	0	249	0	67[e]
Pacific	**2,670**	**2,655**	**15**	**0**	**0**
Alaska	0	0	0	0	0
California	0	0	0	0	0
Hawaii	2,655	2,655	0	0	0
Oregon	6	0	6	0	0
Washington	9	0	9	0	0

a. Includes coke oven gas, manufactured gas, biomass gas, and air injection for Btu stabilization.
b. Manufactured gas.
c. Biomass gas.
d. Coke oven gas.
e. Air injection for Btu stabilization.
f. Less than 500,000 cubic feet.

Source: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1985.

TABLE 3-18
NUMBER OF PRODUCING GAS WELLS, BY STATE, 1965-1986[a]

Division and State	1965	1970	1975	1980	1984	1985[R]	1986[P]
United States	**111,680**	**117,483**	**132,095**	**182,004**	**233,853**	**243,344**	**250,457**
New England	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**18,666**	**16,839**	**18,200**	**21,976**	**29,000**	**31,000**	**31,427**
New Jersey	0	0	0	0	0	0	0
New York	1,150	600	900	2,076	3,500	4,500	4,927
Pennsylvania	17,516	16,239	17,300	19,900	25,500	26,500	26,500
East North Central	**7,626**	**9,082**	**11,110**	**18,442**	**30,031**	**33,393**	**34,991**
Illinois	25	8	41	70	81	123	217
Indiana	275	50	478	698	758	1,272	1,289
Michigan	226	1,235	209	423	535	655	740
Ohio	7,100	7,789	10,382	17,251	28,657	31,343	32,745
Wisconsin	0	0	0	0	0	0	0
West North Central	**7,281**	**8,735**	**8,925**	**12,935**	**15,049**	**16,109**	**11,632**
Iowa	0	0	0	0	0	0	0
Kansas	7,200	8,660	8,865	12,820	14,925	15,980	11,485
Minnesota	0	0	0	0	0	0	0
Missouri	11	11	3	0	4	4	0
Nebraska	39	35	19	22	23	19	0
North Dakota	31	29	18	80	55	62	103
South Dakota	0	0	20	13	42	44	44
South Atlantic	**19,719**	**20,833**	**21,901**	**26,167**	**31,584**	**32,977**	**33,712**
Delaware	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	0	0	0	0	0	0	0
Georgia	0	0	0	0	0	0	0
Maryland	20	16	15	9	9	7	0
North Carolina	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0
Virginia	99	115	186	258	425	495	562
West Virginia	19,600	20,702	21,700	25,900	31,150	32,475	33,150
East South Central	**6,490**	**7,255**	**7,684**	**8,922**	**10,911**	**11,846**	**12,245**
Alabama	0	2	45	314	690	863	976
Kentucky	6,100	6,913	7,386	7,984	8,798	9,285	9,926
Mississippi	370	325	248	447	683	710	555
Tennessee	20	15	5	177	780	988	788
West South Central	**40,502**	**42,283**	**48,440**	**71,447**	**88,325**	**88,415**	**91,374**
Arkansas	744	1,008	1,128	1,114	2,371	2,623	2,719
Louisiana	8,563	9,690	11,359	16,190	17,124	16,716	16,479
Oklahoma	7,447	8,168	9,769	16,419	23,691	24,756	25,734
Texas	23,748	23,417	26,184	37,724	45,139	44,320	46,442
Mountain	**10,352**	**11,425**	**14,189**	**20,914**	**27,357**	**27,945**	**30,248**
Arizona	8	4	1	1	1	1	0
Colorado	701	861	1,380	2,997	4,549	4,401	3,573
Idaho	0	0	0	0	0	0	0
Montana	784	739	1,235	1,881	2,153	2,260	1,818
Nevada	0	0	0	0	0	0	0
New Mexico	8,010	8,848	10,352	14,571	17,806	18,308	22,362
Utah	148	173	271	200	700	755	411
Wyoming	701	800	950	1,264	2,148	2,220	2,084
Pacific	**1,044**	**1,031**	**1,646**	**1,201**	**1,556**	**1,659**	**1,388**
Alaska	11	51	61	71	81	84	103
California	1,033	980	1,585	1,125	1,469	1,566	1,285
Hawaii	0	0	0	0	0	0	0
Oregon	0	0	0	5	6	9	0
Washington	0	0	0	0	0	0	0
Other States	**0**	**0**	**0**	**0**	**0**	**0**	**36**
Federal Waters	**b**	**b**	**b**	**b**	**b**	**b**	**3,404**

a. Data pertain only to dry gas and condensate wells. Data as of December 31.
b. "Federal Waters" is included in Texas, Louisiana, and California totals.
R - Revised. P - Preliminary.
Source: Preliminary numbers taken from *World Oil*, February 15, 1987. Revised numbers taken from U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1985.

TABLE 3-19
NEW GAS WELL COMPLETIONS, BY STATE, 1970-1986[a]

Division and State	1970	1975	1980	1983[R]	1984[R]	1985[R]	1986[P]
United States	**4,031**	**8,169**	**17,132**	**14,505[b]**	**14,962[b]**	**12,873[b]**	**7,599[b]**
New England	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**255**	**964**	**1,634**	**1,631**	**2,014**	**1,777**	**803**
New Jersey	0	0	0	0	0	0	0
New York	17	362	368	359	450	312	166
Pennsylvania	238	602	1,266	1,272	1,564	1,465	637
East North Central	**750**	**835**	**2,795**	**2,711**	**1,692**	**1,208**	**527**
Illinois	6	5	14	26	47	38	23
Indiana	5	17	46	22	21	24	19
Michigan	18	34	52	41	70	42	66
Ohio	721	779	2,683	2,622	1,554	1,104	419
Wisconsin	0	0	0	0	0	0	0
West North Central	**111**	**501**	**681**	**463**	**437**	**512**	**342**
Iowa	0	0	0	0	0	0	0
Kansas	109	499	642	433	428	502	339
Minnesota	0	0	0	0	0	0	0
Missouri	0	1	2	1	0	2	0
Nebraska	2	1	3	15	5	1	1
North Dakota	0	0	14	7	3	4	2
South Dakota	0	0	20	7	1	3	0
South Atlantic	**707**	**395**	**1,545**	**1,281**	**1,695**	**1,250**	**717**
Delaware	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	0	0	1	0	0	1	0
Georgia	0	0	0	0	0	0	0
Maryland	0	0	0	0	0	0	0
North Carolina	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0
Virginia	0	26	17	11	56	84	131
West Virginia	707	569	1,527	1,270	1,639	1,165	586
East South Central	**141**	**242**	**581**	**572**	**711**	**683**	**338**
Alabama	5	34	64	92	161	116	60
Kentucky	110	128	191	245	367	415	183
Mississippi	16	32	69	40	50	58	33
Tennessee	10	48	257	195	133	94	62
West South Central	**1,685**	**3,872**	**7,627**	**5,987**	**6,698**	**5,720**	**3,224**
Arkansas	32	24	121	200	218	256	154
Louisiana	575	830	1,787	1,039	1,193	1,007	503
Oklahoma	295	667	2,146	1,628	1,806	1,483	1,012
Texas	783	2,351	3,573	3,120	3,481	2,974	1,555
Mountain	**326**	**1,108**	**2,179**	**1,274**	**1,243**	**1,195**	**843**
Arizona	0	0	0	1	0	0	0
Colorado	54	268	546	438	488	399	410
Idaho	0	0	0	0	0	0	0
Montana	48	265	226	77	105	83	93
Nevada	0	0	1	0	0	0	0
New Mexico	169	464	1,061	498	430	577	239
Utah	10	16	97	104	82	62	52
Wyoming	45	95	248	156	138	74	49
Pacific	**56**	**52**	**90**	**87**	**134**	**123**	**91**
Alaska	2	3	2	1	0	0	4
California	54	49	86	86	134	120	85
Hawaii	0	0	0	0	0	0	0
Oregon	0	0	2	0	0	3	2
Washington	0	0	0	0	0	0	0
Federal Waters	**0**	**0**	**0**	**171**	**278**	**206**	**93**

a. Data is published "as reported"; therefore, recent periods are incomplete and understate actual drilling levels. See detailed explanation at the beginning of this section.
b. Reflects API estimates. State totals do not add to U.S. total. See Footnote a.
R–Revised. P–Preliminary.
Source: American Petroleum Institute, *Well Completions and Footage Drilled in the U.S.* (Data for 1970, 1975 and 1980); *Quarterly Completion Report*, Fourth Quarter, 1986 (1984 Data); Fourth Quarter, 1985 (1983 Data); Second Quarter, 1987 (1985 and 1986 Data).

TABLE 3-20
NEW FIELD WILDCAT WELLS DRILLED AND PROPORTION SUCCESSFUL 1960-1986[a]

Year	Total Drilled	Dry	Productive	Percent Productive
1960	7,320	6,575	745	10.2
1965	6,182	5,544	638	10.3
1970	4,829	4,348	481	10.0
1971	4,636	4,161	475	10.2
1972	5,011	4,454	557	11.1
1973	5,096	4,346	750	14.7
1974	5,946	5,084	862	14.5
1975	6,238	5,315	923	14.8
1976	5,856	4,871	985	16.8
1977	6,162	5,170	992	16.1
1978	6,731	5,603	1,128	16.8
1979	6,423	5,203	1,220	19.0
1980	7,332	5,973	1,359	18.5
1981	9,151	7,563	1,588	17.4
1982	7,386	6,061	1,325	17.9
1983	6,057	5,063	994	16.4
1984[R]	6,528	5,545	983	15.1
1985[R]	5,569	4,801	768	13.8
1986[P]	3,333	2,867	466	14.0

a. Data is published "as reported"; therefore, recent periods are incomplete and understate actual drilling levels. See detailed explanation at the beginning of this section.
R–Revised. P–Preliminary.
Source: American Petroleum Institute, *Quarterly Completion Report*, various issues.

TABLE 3-21
NEW WELL COMPLETIONS, BY TYPE OF WELL, 1960-1986[a]

Year	Total[b]	Oil	Gas	Dry	Service[c]
1960	44,018	21,186	3,952	17,574	2,733
1965	39,510	18,761	4,724	16,025	1,922
1970	28,173	13,043	4,031	11,099	1,258
1971	26,268	11,903	3,983	10,382	1,365
1972	27,934	11,437	5,484	11,013	1,458
1973	27,692	10,251	6,975	10,466	908
1974	33,037	13,664	7,168	12,205	1,132
1975	38,884	16,979	8,169	13,736	1,612
1976	40,940	17,697	9,438	13,805	1,528
1977	45,855	18,700	12,119	15,036	1,320
1978	50,061	19,065	14,405	16,591	1,547
1979	51,890	20,689	15,166	16,035	1,424
1980	69,486	32,120	17,132	20,234	1,952
1981	89,234	42,520	19,742	26,972	2,223
1982	83,889	39,252	18,810	25,827	2,051
1983	75,738	37,396	14,505	23,837	1,917
1984[R]	84,983	44,472	14,962	25,549	2,104
1985[R]	70,708	36,374	12,875	21,459	1,627
1986[P]	38,324	18,231	7,599	12,494	603

a. See detailed explanation at the beginning of this section.
b. Includes Oil, Gas and Dry, but not service.
c. Excludes stratigraphic and core tests. Based on "as reported" data. Not included in Total.
R–Revised. P–Preliminary.
Note: All data from 1982-1986 reflects API estimates except service.
Source: Oil and Gas Journal prior to 1968, American Petroleum Institute, *Quarterly Completion Report*, various issues.

TABLE 3-22
NEW WELL COMPLETIONS, BY TYPE OF WELL AND STATE, 1986[a]

Division and State	Total[b]	Oil	Gas	Dry	Service
United States	**38,324[c]**	**18,231[c]**	**7,599[c]**	**12,494[c]**	**603**
New England	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**923**	**88**	**803**	**32**	**0**
New Jersey	0	0	0	0	0
New York	189	12	166	11	0
Pennsylvania	734	76	637	21	0
East North Central	**3,676**	**2,126**	**527**	**1,023**	**43**
Illinois	1,162	700	23	439	14
Indiana	367	172	19	176	13
Michigan	489	118	66	305	8
Ohio	1,658	1,136	419	103	8
Wisconsin	0	0	0	0	0
West North Central	**3,280**	**1,398**	**342**	**1,540**	**15**
Iowa	0	0	0	0	0
Kansas	2,898	1,245	339	1,314	7
Minnesota	0	0	0	0	0
Missouri	10	5	0	5	0
Nebraska	137	41	1	95	8
North Dakota	218	105	2	111	0
South Dakota	17	2	0	15	0
South Atlantic	**835**	**96**	**717**	**22**	**0**
Delaware	0	0	0	0	0
District of Columbia	0	0	0	0	0
Florida	14	7	0	7	0
Georgia	2	0	0	2	0
Maryland	1	0	0	1	0
North Carolina	0	0	0	0	0
South Carolina	0	0	0	0	0
Virginia	137	0	131	6	0
West Virginia	681	89	586	6	0
East South Central	**1,454**	**364**	**338**	**752**	**5**
Alabama	218	29	60	129	0
Kentucky	797	223	183	391	4
Mississippi	293	79	33	181	1
Tennessee	146	33	62	51	0
West South Central	**19,833**	**9,875**	**3,224**	**6,734**	**479**
Arkansas	480	150	154	176	0
Louisiana	2,559	1,013	503	1,043	4
Oklahoma	4,244	1,999	1,012	1,233	29
Texas	12,550	6,713	1,555	4,282	446
Mountain	**3,278**	**1,271**	**843**	**1,158**	**30**
Arizona	5	0	0	5	0
Colorado	1,017	299	410	308	2
Idaho	4	0	0	4	0
Montana	337	71	93	173	0
Nevada	18	1	0	17	0
New Mexico	910	477	239	194	16
Utah	193	93	52	43	0
Wyoming	794	331	49	414	12
Pacific	**2,209**	**1,956**	**91**	**162**	**34**
Alaska	174	156	4	14	4
California	2,025	1,800	85	140	27
Hawaii	0	0	0	0	0
Oregon	10	0	2	8	0
Washington	0	0	0	0	0
Federal Waters	**911**	**146**	**93**	**272**	**3**

a. Based on "as reported" data; therefore data understates actual levels of drilling activity. See detailed explanation at the beginning of this section.
b. Excludes service wells, stratigraphic and core tests.
c. Reflects API estimates. State totals do not add to U.S. total. See footnote a.
Source: American Petroleum Institute, *Quarterly Completion Report*, Second Quarter 1987.

TABLE 5-23
HOLES DRILLED AND PROPORTION SUCCESSFUL, BY TYPE OF EXPLORATION HOLE
1960-1986

	Outposts-Extensions	New-Pool Wildcats	Deeper-Pool Tests	Shallower-Pool Tests	New-Field Wildcats	Total
1960						
Drilled	2,431	1,342	495	116	7,320	11,704
Dry	1,603	1,000	309	28	6,575	9,515
Productive	828	343	186	88	745	2,189
Percent Productive	34.1	25.5	37.6	75.9	10.2	18.7
1965						
Drilled	1,131	1,707	353	93	6,182	9,466
Dry	805	1,374	242	40	5,544	8,005
Productive	326	333	111	53	638	1,461
Percent Productive	28.8	19.5	31.4	57.0	10.3	15.4
1970						
Drilled	1,228	1,045	280	93	5,069	7,693
Dry	832	808	187	39	4,576	6,422
Productive	396	235	93	54	493	1,271
Percent Productive	32.2	22.5	33.8	58.1	9.7	16.5
1975						
Drilled	1,577	1,112	285	133	6,104	9,214
Dry	905	719	181	38	5,228	7,071
Productive	672	393	107	95	876	2,143
Percent Productive	42.6	35.3	37.2	71.4	14.4	23.3
1979						
Drilled	1,853	1,486	486	246	6,374	10,445
Dry	1,003	841	304	61	5,212	7,421
Productive	850	643	182	185	1,162	3,024
Percent Productive	45.9	43.4	37.5	75.2	18.2	29.0
1980						
Drilled	1,981	1,819	789	293	7,034	11,916
Dry	1,104	952	523	69	5,694	8,342
Productive	877	867	266	224	1,340	3,574
Percent Productive	44.3	47.7	33.7	76.4	19.1	30.0
1981						
Drilled	3,028	2,340	1,299	469	8,052	15,168
Dry	1,541	1,353	907	153	6,629	10,583
Productive	1,487	987	392	296	1,423	4,585
Percent Productive	49.1	42.2	30.2	65.9	17.7	30.2
1982						
Drilled	3,328	2,870	1,787	613	7,914	16,507
Dry	1,864	1,699	1,315	233	6,512	11,623
Productive	1,464	1,171	467	380	1,402	4,884
Percent Productive	44.0	40.8	26.2	62.0	17.7	29.6
1983						
Drilled	2,498	2,281	1,979	640	6,489	13,887
Dry	1,437	1,340	1,491	288	5,351	9,907
Productive	1,061	941	488	352	1,138	3,980
Percent Productive	42.5	41.3	24.7	55.0	17.5	28.7
1984						
Drilled	3,360	2,580	2,311	758	6,088	15,077
Dry	2,077	1,618	1,869	384	5,208	11,156
Productive	1,263	962	442	374	880	3,921
Percent Productive	37.8	37.3	19.1	49.3	14.5	26.0
1985						
Drilled	2,510	2,343	2,013	602	6,364	13,832
Dry	1,473	1,356	1,627	291	5,355	10,102
Productive	1,037	987	386	311	1,009	3,730
Percent Productive	41.3	42.1	19.2	51.7	15.9	27.0
1986						
Drilled	1,596	579	1,709	391	4,731	9,006
Dry	888	162	1,485	210	4,039	6,784
Productive	708	417	224	181	692	2,222
Percent Productive	44.4	72.0	13.1	46.3	14.6	24.7

Source: Committee on Statistics of Drilling, *American Association of Petroleum Geologists Bulletin*, 1986.

TABLE 3-24
EXPLORATORY WELLS AND DRY HOLES DRILLED, BY STATE AND TYPE OF WELL, 1986[a]

Division and State	Total Drilled	Dry Holes	Producers		
			Total	Oil	Gas
United States	7,246	5,474	1,772[b]	979[b]	793[b]
New England	0	0	0	0	0
Middle Atlantic	24	12	12	1	11
New Jersey	0	0	0	0	0
New York	7	5	2	0	2
Pennsylvania	17	7	10	1	9
East North Central	644	544	100	70	30
Illinois	246	215	31	25	6
Indiana	126	102	24	19	5
Michigan	246	201	45	26	19
Ohio	26	26	0	0	0
Wisconsin	0	0	0	0	0
West North Central	1,320	937	383	305	78
Iowa	3	2	1	1	0
Kansas	1,086	769	317	241	76
Minnesota	0	0	0	0	0
Missouri	5	5	0	0	0
Nebraska	83	64	19	18	1
North Dakota	126	82	44	43	1
South Dakota	17	15	2	2	0
South Atlantic	25	11	9	1	8
Delaware	0	0	0	0	0
District of Columbia	0	0	0	0	0
Florida	6	5	1	1	0
Georgia	2	2	0	0	0
Maryland	1	1	0	0	0
North Carolina	0	0	0	0	0
South Carolina	0	0	0	0	0
Virginia	7	6	1	0	1
West Virginia	9	2	7	0	7
East South Central	402	310	92	38	54
Alabama	78	51	27	6	21
Kentucky	163	138	25	9	16
Mississippi	109	90	19	16	3
Tennessee	52	31	21	7	14
West South Central	3,191	2,393	798	360	438
Arkansas	83	65	18	10	8
Louisiana	404	336	68	20	48
Oklahoma	209	171	38	26	12
Texas	2,495	1,821	674	304	370
Mountain	989	762	227	168	59
Arizona	5	5	0	0	0
Colorado	278	223	55	37	18
Idaho	4	4	0	0	0
Montana	136	116	20	15	5
Nevada	18	17	1	1	0
New Mexico	156	76	80	55	25
Utah	34	28	6	5	1
Wyoming	358	293	65	55	10
Pacific	131	103	28	4	24
Alaska	1	1	0	0	0
California	122	94	28	4	24
Hawaii	0	0	0	0	0
Oregon	8	8	0	0	0
Washington	0	0	0	0	0
Federal Waters	263	185	18	4	18

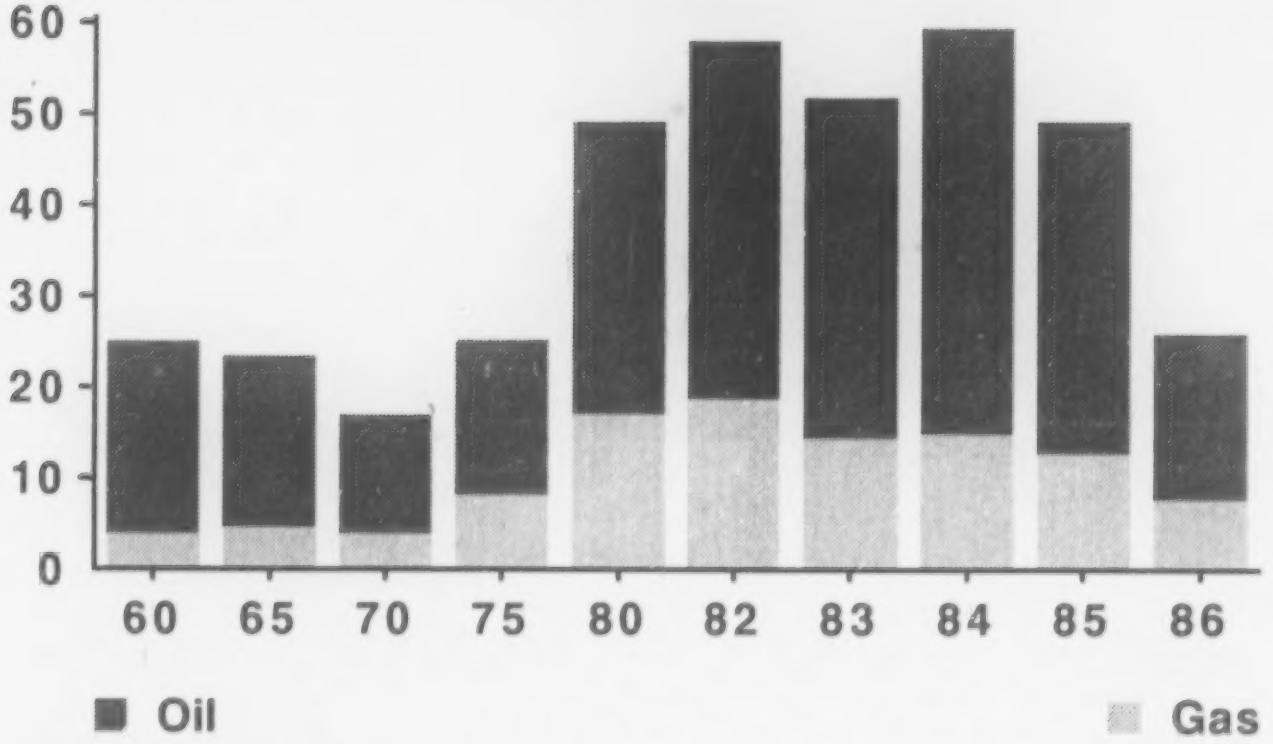
a. See detailed explanation at the beginning of this section.
b. Reflects API estimates. State totals do not add to U.S. total. See footnote a.
Source: American Petroleum Institute, *Quarterly Completion Report*, Second Quarter 1987.

TABLE 3-17
NATURAL GAS TREATED FOR NATURAL GASOLINE AND ALLIED PRODUCTS, AND QUANTITIES AND VALUE OF PRODUCTS RECOVERED, 1960-1986[a]

Year	Natural Gas Treated	Products Recovered							
		Natural Gasoline		Liquefied Petroleum Gases		Finished Gasoline and Naphtha		Other Products[b]	
	(Millions of cubic feet)	Quantity (Thousands of gallons)	Value (Thousands of dollars)	Quantity (Thousands of gallons)	Value (Thousands of dollars)	Quantity (Thousands of gallons)	Value (Thousands of dollars)	Quantity (Thousands of gallons)	Value (Thousands of dollars)
1960	9,768,189	4,479,454	313,058	8,444,074	391,566	503,659	43,400	859,394	60,361
1965	13,772,101	5,457,367	360,603	11,257,267	417,249	439,267	36,270	1,391,436	97,481
1966	14,924,429	5,564,139	366,332	12,134,294	527,223	380,135	33,380	1,604,154	120,426
1967	15,641,633	5,850,271	389,156	13,717,861	632,994	307,263	28,044	1,731,727	129,742
1968	16,316,674	6,210,708	411,695	14,753,004	552,335	280,728	26,577	1,868,622	133,407
1969	17,655,108	6,633,018	457,986	15,895,194	498,927	374,514	36,954	1,467,396	108,144
1970	18,509,309	6,935,838	468,602	16,783,662	672,088	240,702	23,234	1,488,270	111,188
1971	19,252,807	6,942,474	496,676	17,540,628	769,397	224,784	23,210	1,240,344	96,771
1972	19,906,893	6,875,442	500,425	18,678,912	828,718	186,732	20,737	1,063,986	83,261
1973	19,679,291	6,791,736	568,214	18,775,386	1,188,289	136,038	13,902	942,606	86,668
1974	18,684,480	6,212,766	974,825	18,813,732	1,980,769	52,878	10,028	797,664	122,305
1975	17,748,426	5,620,608	777,637	18,651,612	1,893,890	45,528	8,411	712,488	92,650
1976	17,717,951	5,575,584	882,718	18,369,372	2,298,647	40,572	9,650	670,362	93,074
1977	17,569,835	5,587,134	c	18,604,152	c	30,156	c	577,668	c
1978	c	5,306,784	c	18,124,512	c	28,896	c	567,420	c
1979	c	4,042,668	c	26,008,878	c	271,908	c	917,952	c
1980	c	4,560,696	c	18,518,304	c	239,694	c	864,360	c
1981	c	4,471,740	c	19,259,772	c	154,014	c	773,472	c
1982	c	3,850,308	c	19,277,622	c	93,030	c	545,916	c
1983	c	3,015,684	c	20,142,276	c	128,772	c	608,160	c
1984	c	4,490,136	c	20,506,248	c	2,898	c	52,752	c
1985	c	4,321,212	c	20,131,440	c	89,124	c	127,260	c
1986	c	4,122,930	c	19,581,912	c	4,872	c	62,286	c

a. Due to changes in reporting requirements, 1979-1986 data is not comparable with prior years.
b. Includes kerosene, distillate fuel oil, and miscellaneous products.
c. Not available.
Source: U.S. Department of Energy, Energy Information Administration, *Petroleum Supply Annual*, 1986.

TOTAL GAS AND OIL NEW WELL COMPLETIONS (THOUSANDS)



REFERENCE: TABLE 3-21

TABLE 3-25
DRILLING OPERATIONS AND EXPENDITURES, BY TYPE OF WELL, 1984-1985[a]

	Total	Oil	Gas[b]	Dry
		1984		
Wells drilled	77,210	38,976	14,983	23,251
Footage drilled (000)	350,559	154,018	82,644	113,927
Expenditures (000)	$25,206,219	$10,214,240	$7,338,788	$7,653,191
Average depth per well (ft)	4,541	3,952	5,516	4,900
Average cost per well	$ 326,463	$ 262,065	$ 489,808	$ 329,155
Average cost per foot	$ 71.90	$ 66.32	$ 88.80	$ 67.18
		1985		
Wells drilled	67,821	33,800	13,854	20,167
Footage drilled (000)	314,490	136,889	75,707	101,894
Expenditures (000)	$23,696,603	$ 9,141,070	$7,047,142	$7,508,391
Average depth per well (ft)	4,637	4,050	5,465	5,053
Average cost per well	$ 349,399	$ 270,446	$ 508,672	$ 372,311
Average cost per foot	$ 75.35	$ 66.78	$ 93.08	$ 73.69

a. Includes all charges for drilling and equipping wells up to and including the "Christmas" trees, but excludes exploration, development and production costs and expenditures for service wells.
b. Includes condensate wells.
Source: American Petroleum Institute, *Joint Association Survey on Drilling Costs*, December 1986.

TABLE 3-26
OFFSHORE DRILLING OPERATIONS AND EXPENDITURES, BY TYPE OF WELL, 1984-1985[a]

	Total	Oil	Gas[b]	Dry
		1984		
Wells drilled	1,421	486	372	563
Footage drilled (000)	14,259	4,382	3,789	6,090
Expenditures (000)	$5,023,947	$1,322,458	$1,352,636	$2,348,852
Average depth per well (ft)	10,035	9,016	10,182	10,817
Average cost per well	$3,535,501	$2,721,107	$3,636,119	$4,172,019
Average cost per foot	$ 352.33	$ 301.79	$ 357.08	$ 385.69
		1985		
Wells drilled	1,247	369	307	571
Footage drilled (000)	12,816	3,400	3,275	6,141
Expenditures (000)	$5,079,292	$1,265,697	$1,299,889	$2,513,706
Average depth per well (ft)	10,277	9,215	10,667	10,755
Average cost per well	$4,073,209	$3,430,073	$4,234,166	$4,402,287
Average cost per foot	$ 396.32	$ 372.26	$ 396.91	$ 409.33

a. Includes all charges for drilling and equipping wells up to and including the "Christmas" trees, but excludes exploration, development and production costs and expenditures for service wells.
b. Includes condensate wells.
R–Revised.
Source: American Petroleum Institute, *Joint Association Survey on Drilling Costs*, December 1986.

TABLE 3-27
AVERAGE COST PER FOOT BY TYPE OF WELL, BY DEPTH CLASSES, 1981-1985[a]

Depth Range (in feet)	Total	Oil	Gas	Dry
		1981		
0- 1,249	$ 46.17	$ 46.76	$ 51.62	$ 42.10
1,250- 2,499	42.00	47.92	39.97	31.46
2,500- 3,749	43.09	49.21	46.77	30.82
3,750- 4,999	46.24	54.92	48.09	34.41
5,000- 7,499	63.16	70.74	68.86	49.94
7,500- 9,999	95.86	94.92	109.58	86.32
10,000-12,499	148.80	145.50	163.37	138.05
12,500-14,999	207.53	199.99	228.61	192.20
15,000-17,499	286.38	270.92	314.25	260.55
17,500-19,999	412.30	348.08	433.37	393.12
20,000 and over	509.90	508.40	443.82	575.99
		1982		
0- 1,249	$ 39.50	$ 42.35	$ 47.77	$ 29.75
1,250- 2,499	39.50	46.24	41.96	26.96
2,500- 3,749	42.60	49.18	47.33	28.64
3,750- 4,999	46.77	55.08	50.16	32.77
5,000- 7,499	65.76	74.39	71.19	50.52
7,500- 9,999	101.32	98.63	120.51	89.70
10,000-12,499	160.97	165.42	174.95	143.37
12,500-14,999	239.97	238.27	260.12	219.04
15,000-17,499	337.08	332.07	354.38	318.49
17,500-19,999	462.98	477.76	503.54	409.53
20,000 and over	607.72	423.23	586.21	638.36
		1983		
0- 1,249	$ 37.13	$ 39.35	$ 44.63	$ 29.96
1,250- 2,499	38.07	44.71	40.89	24.60
2,500- 3,749	38.08	43.61	43.20	25.19
3,750- 4,999	41.01	50.52	40.01	28.54
5,000- 7,499	53.44	61.93	53.38	43.02
7,500- 9,999	81.37	82.91	86.27	74.99
10,000-12,499	127.31	131.51	146.48	104.95
12,500-14,999	211.85	216.01	220.35	202.20
15,000-17,499	295.25	340.40	302.32	275.03
17,500-19,999	412.40	365.65	413.40	416.48
20,000 and over	645.79	578.32	659.82	639.18
		1984		
0- 1,249	$ 37.61	$ 41.49	$ 39.43	$ 24.90
1,250- 2,499	37.79	43.91	39.46	24.04
2,500- 3,749	38.73	45.75	40.28	24.70
3,750- 4,999	38.96	46.96	40.86	27.38
5,000- 7,499	50.91	60.26	51.17	37.97
7,500- 9,999	72.53	72.38	89.14	61.23
10,000-12,499	110.00	110.48	128.02	95.02
12,500-14,999	172.41	175.18	189.63	158.07
15,000-17,499	258.70	234.18	279.90	250.02
17,500-19,999	338.58	299.16	326.98	352.65
20,000 and over	574.81	447.54	545.20	625.53
		1985		
0- 1,249	$ 35.39	$ 38.32	$ 36.38	$ 25.79
1,250- 2,499	38.81	44.40	41.28	24.64
2,500- 3,749	39.10	44.36	42.05	27.53
3,750- 4,999	38.62	45.71	40.14	28.09
5,000- 7,499	50.58	58.29	53.46	38.04
7,500- 9,999	76.85	76.13	90.81	63.99
10,000-12,499	113.68	103.56	127.28	113.25
12,500-14,999	171.90	157.41	204.18	155.54
15,000-17,499	276.97	285.93	299.27	258.17
17,500-19,999	323.87	390.31	316.85	317.55
20,000 and over	506.29	272.77	505.90	525.57

a. Includes all charges for drilling and equipping wells up to and including the "Christmas" trees but excludes exploration, development and production costs and expenditures for service wells.

Source: American Petroleum Institute, *Joint Association Survey on Drilling Costs*, December 1985.

TABLE 3-29
WORLD WELL COMPLETIONS
1984

Area	Oil	Gas	Dry	Service	Suspended	Total Wells	Total Footage
North America	41,317	13,074	22,741	3,461	1,621	82,214	398,641,219
South America	2,483	90	605	231	189	3,598	19,046,226
Far East	3,772	207	273	1,308	190	6,912[b]	41,172,157
Western Europe	302	185	444	72	79	1,082	9,096,193
Middle East	345	33	89	85	17	704[c]	5,403,163
Africa	317	27	158	13	90	671[d]	5,038,719
Oceania	147	79	167	1	0	394	2,782,519
World Total[a]	48,683	13,695	24,477	5,171	2,186	95,575	481,180,196

a. No drilling data available for Eastern Europe, USSR, Iran and Iraq.
b. Total does not add due to inclusion of 1,162 total wells from China.
c. Total does not add due to inclusion of 40 total wells from Iran and 95 total wells from Syria.
d. Total does not add to inclusion of 66 total wells from Algeria.
Source: *World Oil*, August 15, 1985.

WORLD WELL COMPLETIONS
1985

Area	Oil	Gas	Dry	Service	Suspended	Total Wells	Total Footage
North America	40,108	13,917	21,835	1,682	44	77,607	346,072,879
South America	2,404	140	479	283	106	3,412	19,803,342
Far East	4,361	206	290	1,267	139	7,563[b]	49,843,900
Western Europe	415	283	295	50	119	1,162	9,440,667
Middle East	427	10	68	76	32	868[c]	5,817,560
Africa	376	41	212	30	49	658	5,458,452
Oceania	142	51	188	3	5	389	2,445,823
World Total[a]	48,183	14,648	23,367	3,391	494	91,659	438,882,623

a. No drilling data available for Eastern Europe, USSR, Iran and Iraq.
b. Total does not add due to inclusion of 1,300 total wells from China.
c. Total does not add due to inclusion of 50 total wells from Iran, 138 total wells from Syria, and 60 total wells from Iraq.
Source: *World Oil*, August 15, 1986.

WORLD WELL COMPLETIONS
1986

Area	Oil	Gas	Dry	Service	Suspended	Total Wells	Total Footage
North America	21,977	8,682	14,131	855	41	45,706	212,138,136
South America	1,906	57	404	290	310	2,967	15,233,977
Far East	669	167	249	180	91	8,386[b]	48,952,349
Western Europe	275	231	263	39	85	893	6,781,732
Middle East	436	20	84	53	53	861[c]	5,151,364
Africa	239	28	173	29	31	500	4,413,263
Oceania	43	34	119	1	17	214	1,394,120
World Total[a]	25,545	9,219	15,423	1,447	628	59,527	294,064,941

a. No drilling data available for Eastern Europe, USSR, Iran and Iraq.
b. Total does not add due to inclusion of 7,030 total wells from China.
c. Total does not add due to inclusion of 54 total wells from Iran, 108 total wells from Syria, and 53 total wells from Iraq.
Source: *World Oil*, August, 1987.

SECTION 4
UNDERGROUND GAS STORAGE

	1986	% Change 86/85
Number of Pools	396	− 1.0
Est. Ultimate Capacity (Millions of cubic feet)	7,791,708	+ 0.8
Input to Storage (Millions of cubic feet)	1,918,854	− 7.2
Output from Storage (Millions of cubic feet)	1,867,606	−17.6
Maximum Day Output (Millions of cubic feet)	38,432	−10.5

TABLE 4-1
NUMBER OF UNDERGROUND STORAGE POOLS AND ULTIMATE CAPACITY IN THE UNITED STATES, 1960-1986

Year	Number of Pools	Number of States	Est. Ultimate Capacity (Billions of Cubic Feet)
1960	217	20	2,854
1965	293	24	4,086
1966	303	24	4,421
1967	308	25	4,520
1968	315	26	4,783
1969	320	26	4,927
1970	325	26	5,178
1971	333	26	5,575
1972	348	26	6,040
1973	360	26	6,279
1974	367	26	6,360
1975	376	26	6,644
1976	386	26	6,927
1977	385	26	7,223
1978	388	26	7,330
1979	399	26	7,437
1980	401	26	7,488
1981	393	26	7,581
1982	404	26	7,727
1983	419	26	7,755
1984	412	26	7,783
1985	400	26	7,731
1986	396	26	7,792

Source: A.G.A. *The Underground Storage of Gas in the United States and Canada*—1986 Update.

TABLE 4-2
NUMBER OF AQUIFER POOLS AND ULTIMATE CAPACITY IN THE UNITED STATES, 1960–1986[a]

Year	Number of Pools	Number of States	Est. Ultimate Capacity (Billions of Cubic Feet)
1960	14	8	b
1965	37	9	643
1970	43	9	968
1971	44	8	1,056
1972	46	9	1,278
1973	49	10	1,399
1974	51	10	1,408
1975	52	10	1,459
1976	52	10	1,484
1977	52	10	1,578
1978	53	10	1,593
1979	56	10	1,601
1980	57	10	1,449
1981	57	10	1,423
1982	56	10	1,432
1983	56	10	1,421
1984	54	10	1,472
1985	52	10	1,401
1986	51	10	1,404

a. These data are included in Table 4-1.
b. Not available.
Source: Same as Table 4-1.

TABLE 4-3
LIQUEFIED NATURAL GAS STORAGE OPERATIONS IN THE UNITED STATES AS OF DECEMBER 31, 1986[a]

	Presently Operating	Proposed or Pending Operation
Complete Plants		
Storage Capacity—MMcf	61,633	2,069
Gross Liquefaction Capacity—MMcf/day	314	20
Sendout Capacity—MMcf/day	9,438	400
Number of Facilities	55	2
Satellite Plants		
Storage Capacity—MMcf	7,162	0
Sendout Capacity—MMcf/day	922	0
Number of Facilities	36	0
Import Terminals[b]		
Storage Capacity—MMcf	5,250	5,775
Sendout Capacity—MMcf/day	385	700
Number of Facilities	2	1

a. Not underground storage.
b. Of those presently operating, Algonquin terminal has been utilized for domestic storage since 1973.
Source: Institute of Gas Technology.

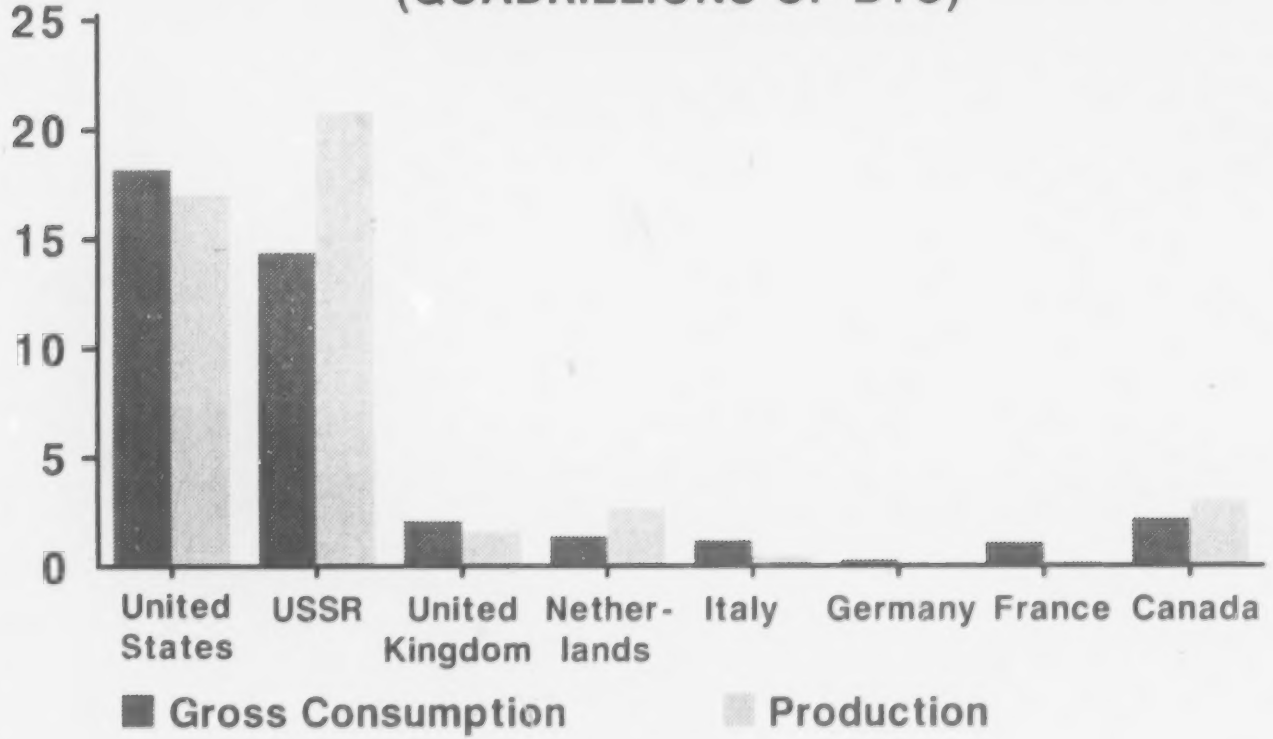
TABLE 4-4
INPUTS, OUTPUTS, AND GAS IN UNDERGROUND STORAGE, BY STATE, 1986

(Millions of Cubic Feet)

Division and State	Year Ending December 31, 1986					
	Input to Storage	Output from Storage	Native Gas	Stored Gas	Maximum Stored Gas	Maximum Day Output
United States	1,918,856	1,867,686	1,115,535	9,213,927	9,798,082	38,432
New England	0	0	0	0	0	0
Middle Atlantic	362,564	354,529	63,883	730,136	908,056	5,741
New Jersey	0	0	0	0	0	0
New York	49,755	47,833	15,090	134,314	166,566	693
Pennsylvania	312,809	306,696	28,407	595,812	661,490	5,048
East North Central	627,663	598,044	303,798	1,835,119	2,019,387	12,068
Illinois	161,623	144,533	11,317	815,449	849,756	3,561
Indiana	19,771	19,073	19,298	87,249	92,163	472
Michigan	307,507	256,760	236,236	556,637	633,516	5,305
Ohio	138,702	167,678	84,947	375,784	443,952	2,747
Wisconsin	0	0	0	0	0	0
West North Central	130,087	110,087	93,806	911,365	937,366	2,322
Iowa	52,028	46,209	0	243,985	261,323	774
Kansas	74,756	53,810	30,012	173,077	181,320	1,023
Minnesota	1,140	666	0	6,642	6,654	53
Missouri	4,407	3,927	0	29,286	29,298	360
Nebraska	5,748	3,465	22,992	58,275	58,671	112
North Dakota	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0
South Atlantic	150,528	158,319	68,717	646,556	695,836	3,136
Delaware	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0
Florida	0	0	0	0	0	0
Georgia	0	0	0	0	0	0
Maryland	11,902	12,373	32,456	25,853	28,108	302
North Carolina	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0
Virginia	0	0	0	0	0	0
West Virginia	138,626	145,946	33,261	420,701	457,728	2,834
East South Central	80,650	84,193	107,310	373,672	395,682	1,844
Alabama	0	0	0	0	0	0
Kentucky	42,922	44,946	79,967	109,699	129,198	1,024
Mississippi	37,512	39,246	27,323	62,973	76,484	820
Tennessee	0	0	0	0	0	0
West South Central	302,967	412,854	109,818	999,907	1,064,811	8,566
Arkansas	1,882	356	22,000	12,388	12,460	75
Louisiana	193,655	220,632	72,011	340,305	419,012	2,456
Oklahoma	84,005	85,564	22,715	276,106	322,680	1,765
Texas	113,325	106,302	73,092	262,108	290,659	4,270
Mountain	70,905	66,805	151,079	370,935	389,830	1,295
Arizona	0	0	0	0	0	0
Colorado	25,067	22,468	20,260	55,289	57,617	650
Idaho	0	0	0	0	0	0
Montana	25,373	14,856	94,373	221,647	222,358	205
Nevada	0	0	0	0	0	0
New Mexico	11,471	16,088	10,600	27,039	35,717	385
Utah	966	1,118	0	5,014	5,165	28
Wyoming	8,028	12,275	25,846	63,932	68,978	127
Pacific	93,267	93,005	151,205	368,362	307,397	3,462
Alaska	0	0	0	0	0	0
California	89,331	88,899	151,205	234,476	273,250	3,316
Hawaii	0	0	0	0	0	0
Oregon	0	0	0	0	0	0
Washington	7,036	4,106	0	33,888	33,957	146

Source: Same as Table 4-1.

NATURAL GAS PRODUCTION AND GROSS CONSUMPTION, 1985
(QUADRILLIONS OF BTU)



REFERENCE: TABLE 3-28

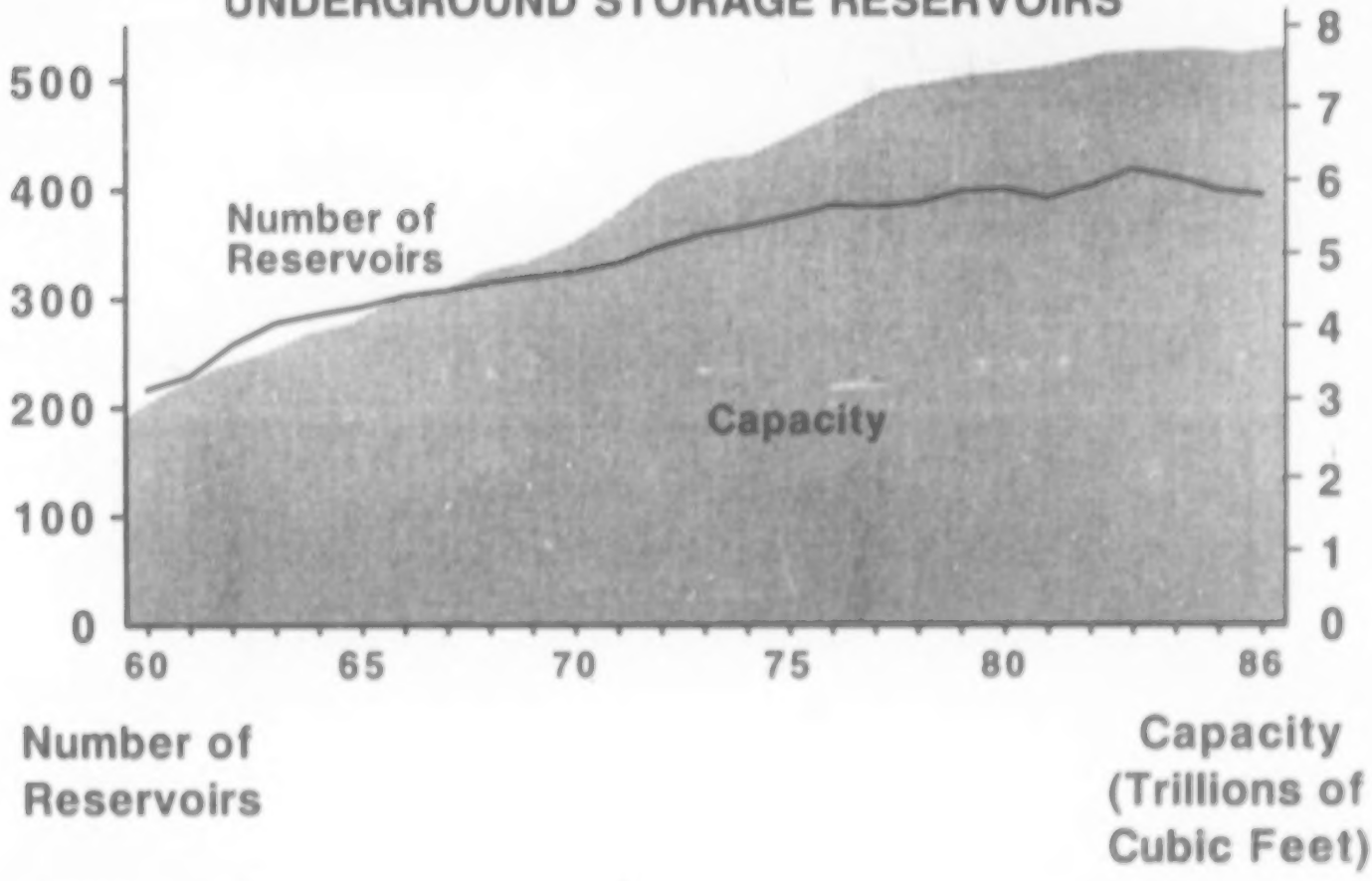
TABLE 3-26
SELECT WORLD NATURAL GAS STATISTICS
1985

Country	Production	Imports	Exports	Gross Consumption	Residential Consumers (000)	Miles of Pipeline (000)
	(Terajoules × 10^9)					
Austria	46.9	169.3	—	213.9	949[a]	6.6[a]
Belgium	1.6	351.0	12.0	340.9	1,908	20.7
Canada	3,307.0	.2	992.3	2,360.8	3,326	108.5
Czechoslovakia	23.1	306.9	—	324.0[a]	2,435	19.1
Denmark	9.5[a]	1.5[a]	5.7[a]	4.6[a]	357[a]	2.7[a]
Finland	—	37.9	—	37.9	94[a]	.3[a]
France	211.1	949.3	10.4	1,129.1	8,574	79.3
German Democratic Republic	149.3	207.7	9.0	339.0	3,547	26.2
Federal Republic of Germany	584.0	1,425.2	47.6	1,918.2	8,834	108.3
Greece	3.3	—	—	3.3	6	.3
Hungary	273.9	136.1	.7	392.7	3,661	6.6
Ireland	90.4	—	—	90.5	158	2.3
Italy	536.8	746.2	—	17.8	9,050[a]	58.9[a]
Luxembourg	—	14.1	—	14.1	58	.6
Netherlands	2,839.0	73.5	1,407.4	1,505.6	4,550[c]	55.3[a]
Norway	1,068.5	—	1,017.5	51.0	2[b]	.5[b]
Poland	162.4	203.2	—	363.2	7,046	18.6
Spain	10.7	99.4	—	.7	1,502	5.9
Switzerland	.7	59.9	1.7	59.0	484	6.3
USSR	22,041.5	—	—	15,165.7[d]	63,554	221.9
United Kingdom	1,664.7	529.5	—	2,172.4	16,275	144.7
United States	18,011.7	1,008.2	59.8	19,218.8	45,670[a]	1,006.8[a]
Yugoslavia	134.4	125.6	—	260.0	425[a]	4.4[a]

a. 1984 data.
b. 1983 data.
c. 1981 data.
d. 1980 data.
Source: United Nations, *Annual Bulletin of Gas Statistics for Europe*, 1985.

CHART 4-1

NUMBER AND CAPACITY OF EXISTING UNDERGROUND STORAGE RESERVOIRS



REFERENCE: TABLE 4-1

TABLE 4-5
NUMBER OF POOLS, WELLS, COMPRESSOR STATIONS, AND HORSEPOWER IN UNDERGROUND STORAGE FIELDS, BY STATE, 1984–1986

Division and State	Number of Pools			Number of Active Wells		
	1984	1985	1986	1984	1985	1986
(1) United States	**412**	**400**	**396**	**18,367**	**18,330**	**18,320**
(2) New England	**0**	**0**	**0**	**0**	**0**	**0**
(3) Middle Atlantic	**92**	**86**	**80**	**2,981**	**3,190**	**3,197**
(4) New Jersey	0	0	0	0	0	0
(5) New York	22	22	21	838	1,003	1,009
(6) Pennsylvania	70	64	59	2,143	2,187	2,188
(7) East North Central	**141**	**139**	**138**	**8,987**	**8,945**	**8,938**
(8) Illinois	34	34	33	1,765	1,734	1,739
(9) Indiana	30	28	29	954	934	941
(10) Michigan	54	54	53	2,978	2,982	2,963
(11) Ohio	23	23	23	3,290	3,295	3,295
(12) Wisconsin	0	0	0	0	0	0
(13) West North Central	**29**	**29**	**29**	**1,420**	**1,420**	**1,422**
(14) Iowa	8	8	8	434	434	434
(15) Kansas	17	17	17	789	789	789
(16) Minnesota	1	1	1	61	61	63
(17) Missouri	1	1	1	82	82	82
(18) Nebraska	2	2	2	54	54	54
(19) North Dakota	0	0	0	0	0	0
(20) South Dakota	0	0	0	0	0	0
(21) South Atlantic	**38**	**38**	**39**	**1,669**	**1,665**	**1,664**
(22) Delaware	0	0	0	0	0	0
(23) District of Columbia	0	0	0	0	0	0
(24) Florida	0	0	0	0	0	0
(25) Georgia	0	0	0	0	0	0
(26) Maryland	1	1	1	82	82	82
(27) North Carolina	0	0	0	0	0	0
(28) South Carolina	0	0	0	0	0	0
(29) Virginia	0	0	0	0	0	0
(30) West Virginia	37	37	38	1,587	1,583	1,582
(31) East South Central	**28**	**25**	**24**	**1,303**	**1,100**	**1,099**
(32) Alabama	0	0	0	0	0	0
(33) Kentucky	24	21	20	1,202	999	998
(34) Mississippi	4	4	4	101	101	101
(35) Tennessee	0	0	0	0	0	0
(36) West South Central	**46**	**45**	**46**	**987**	**967**	**956**
(37) Arkansas	4	4	4	12	12	12
(38) Louisiana	8	8	9	347	349	348
(39) Oklahoma	14	13	13	295	301	291
(40) Texas	20	20	20	333	305	305
(41) Mountain	**27**	**27**	**29**	**513**	**533**	**535**
(42) Arizona	0	0	0	0	0	0
(43) Colorado	9	9	9	198	200	200
(44) Idaho	0	0	0	0	0	0
(45) Montana	5	5	5	217	235	239
(46) Nevada	0	0	0	0	0	0
(47) New Mexico	3	3	3	45	45	43
(48) Utah	2	2	2	19	19	19
(49) Wyoming	8	8	10	34	34	34
(50) Pacific	**11**	**11**	**11**	**507**	**510**	**509**
(51) Alaska	0	0	0	0	0	0
(52) California	9	9	9	430	433	432
(53) Hawaii	0	0	0	0	0	0
(54) Oregon	0	0	0	0	0	0
(55) Washington	2	2	2	77	77	77

Source: Same as Table 4-1.

TABLE 4-5 (Continued)
NUMBER OF POOLS, WELLS, COMPRESSOR STATIONS, AND HORSEPOWER IN UNDERGROUND STORAGE FIELDS, BY STATE, 1984–1986

Number of Compressor Stations			Total HP Installed in Compressor Stations			
1984	1985	1986	1984	1985	1986	
292	**281**	**274**	**1,715,276**	**1,682,492**	**1,675,512**	(1)
0	**0**	**0**	**0**	**0**	**0**	(2)
52	**47**	**49**	**252,730**	**225,755**	**234,745**	(3)
0	0	0	0	0	0	(4)
14	13	14	38,580	36,035	39,435	(5)
38	34	35	214,150	189,720	195,310	(6)
95	**92**	**86**	**670,565**	**671,660**	**656,840**	(7)
29	28	27	217,380	213,290	199,490	(8)
18	16	15	19,780	19,345	19,345	(9)
29	29	25	331,170	331,170	330,150	(10)
19	19	19	102,535	107,855	107,855	(11)
0	0	0	0	0	0	(12)
20	**23**	**23**	**93,275**	**94,050**	**94,050**	(13)
4	4	4	37,040	37,040	37,040	(14)
12	15	15	34,435	35,210	35,210	(15)
1	1	1	2,400	2,400	2,400	(16)
1	1	1	8,850	8,850	8,850	(17)
2	2	2	10,550	10,550	10,550	(18)
0	0	0	0	0	0	(19)
0	0	0	0	0	0	(20)
20	**20**	**17**	**89,610**	**89,610**	**66,010**	(21)
0	0	0	0	0	0	(22)
0	0	0	0	0	0	(23)
0	0	0	0	0	0	(24)
0	0	0	0	0	0	(25)
1	1	1	11,000	11,000	11,000	(26)
0	0	0	0	0	0	(27)
0	0	0	0	0	0	(28)
0	0	0	0	0	0	(29)
19	19	16	78,610	78,610	55,010	(30)
21	**17**	**17**	**71,950**	**71,250**	**71,250**	(31)
0	0	0	0	0	0	(32)
18	14	14	38,700	35,750	35,750	(33)
3	3	3	33,250	35,500	35,500	(34)
0	0	0	0	0	0	(35)
45	**43**	**45**	**322,692**	**318,483**	**339,293**	(36)
3	3	3	1,800	1,800	2,400	(37)
8	7	8	137,040	137,040	158,040	(38)
12	11	9	84,389	79,210	78,510	(39)
22	22	25	99,463	100,433	100,343	(40)
28	**28**	**26**	**86,924**	**83,754**	**82,244**	(41)
0	0	0	0	0	0	(42)
8	8	8	37,670	34,500	34,500	(43)
0	0	0	0	0	0	(44)
6	6	6	24,235	24,235	24,225	(45)
0	0	0	0	0	0	(46)
5	5	3	12,680	12,680	11,180	(47)
2	2	2	1,200	1,200	1,200	(48)
7	7	7	11,139	11,139	11,139	(49)
11	**11**	**11**	**127,230**	**127,930**	**131,080**	(50)
0	0	0	0	0	0	(51)
10	10	10	115,430	115,430	118,580	(52)
0	0	0	0	0	0	(53)
0	0	0	0	0	0	(54)
1	1	1	11,800	12,500	12,500	(55)

TABLE 4-6
ULTIMATE CAPACITY OF EXISTING RESERVOIRS, BY STATE, 1986

(Millions of Cubic Feet)

Division and State	Cushion Gas			Working Gas	Ultimate Reservoir Capacity*
	Native	Injected	Total		
United States	**1,115,525**	**2,462,638**	**3,578,163**	**2,763,190**	**7,791,708**
New England	**0**	**0**	**0**	**0**	**0**
Connecticut	0	0	0	0	0
Maine	0	0	0	0	0
Massachusetts	0	0	0	0	0
New Hampshire	0	0	0	0	0
Rhode Island	0	0	0	0	0
Vermont	0	0	0	0	0
Middle Atlantic	**43,583**	**387,866**	**431,449**	**332,260**	**917,551**
New Jersey	0	0	0	0	0
New York	15,096	78,168	93,264	56,146	182,277
Pennsylvania	28,487	309,698	338,185	276,114	735,274
East North Central	**353,798**	**1,020,909**	**1,374,708**	**823,484**	**2,636,230**
Illinois	11,317	555,160	566,477	260,428	901,521
Indiana	19,298	57,785	77,084	29,464	169,224
Michigan	238,236	160,162	398,398	405,610	988,569
Ohio	84,947	247,802	332,749	127,982	576,916
Wisconsin	0	0	0	0	0
West North Central	**53,004**	**233,589**	**286,593**	**277,676**	**753,656**
Iowa	0	117,751	117,751	126,234	354,500
Kansas	30,012	95,954	125,966	77,123	245,043
Minnesota	0	4,605	4,605	2,037	20,000
Missouri	0	11,759	11,759	17,527	45,000
Nebraska	22,992	3,520	26,512	54,755	89,113
North Dakota	0	0	0	0	0
South Dakota	0	0	0	0	0
South Atlantic	**65,717**	**252,060**	**317,777**	**194,494**	**574,825**
Delaware	0	0	0	0	0
District of Columbia	0	0	0	0	0
Florida	0	0	0	0	0
Georgia	0	0	0	0	0
Maryland	32,456	11,946	44,402	13,907	64,770
North Carolina	0	0	0	0	0
South Carolina	0	0	0	0	0
Virginia	0	0	0	0	0
West Virginia	33,261	240,114	273,375	180,587	510,055
East South Central	**107,320**	**45,015**	**152,335**	**128,212**	**316,803**
Alabama	0	0	0	0	0
Kentucky	79,997	26,248	106,245	84,067	208,472
Mississippi	27,323	18,767	46,090	44,205	108,331
Tennessee	0	0	0	0	0
West South Central	**189,818**	**349,637**	**539,455**	**541,270**	**1,399,623**
Arkansas	22,000	0	22,000	12,388	38,000
Louisiana	72,011	190,835	262,846	149,470	561,625
Oklahoma	22,715	128,199	150,914	147,907	386,861
Texas	73,092	30,603	103,695	231,505	413,137
Mountain	**151,080**	**61,509**	**212,589**	**309,412**	**660,971**
Arizona	0	0	0	0	0
Colorado	20,261	19,739	40,000	33,550	84,377
Idaho	0	0	0	0	0
Montana	94,373	15,200	109,573	206,447	373,960
Nevada	0	0	0	0	0
New Mexico	10,600	12,828	23,428	14,211	91,353
Utah	0	4,220	4,220	794	5,388
Wyoming	25,846	9,522	35,368	54,410	105,893
Pacific	**151,205**	**112,050**	**263,255**	**156,382**	**532,046**
Alaska	0	0	0	0	0
California	151,205	90,750	241,955	143,794	498,089
Hawaii	0	0	0	0	0
Oregon	0	0	0	0	0
Washington	0	21,300	21,300	12,588	33,957

*. In some states or regions, the difference between the sum of the components and Ultimate Reservoir Capacity represents presently unused capacity.

Source: Same as Table 4-1.

SECTION 5
DISTRIBUTION AND TRANSMISSION

	1986	% Change 86/85
Miles of Pipeline		
(Thousands)		
Total	1,134.1	+ 1.4
Field & Gathering	93.8	− 0.4
Transmission	271.0	− 0.1
Distribution	769.3	+ 2.1
Miles Installed		
(Thousands)	18.6	− 2.7

TABLE 5-1
GAS UTILITY INDUSTRY MILES OF PIPELINE AND MAIN, BY TYPE, 1960-1986[a]

(Thousands)

Year	Total	Field and Gathering	Transmission Pipeline[b]	Distribution Main
1960	630.9	55.8	183.7	391.4
1961	659.0	56.7	191.9	410.4
1962	683.2	58.7	196.4	428.1
1963	709.9	60.7	200.9	448.3
1964	736.2	61.0	205.4	469.8
1965	767.5	61.7	211.3	494.5
1966	799.6	63.0	217.0	519.6
1967	828.3	63.7	225.4	539.2
1968	861.6	64.4	234.5	562.7
1969	891.6	64.9	248.1	578.6
1970	913.3	66.3	252.2	594.8
1971	931.4	66.2	254.8	610.4
1972	948.1	66.9	258.1	623.1
1973	962.9	65.9	263.1	633.8
1974	974.1	66.4	262.2	645.6
1975	979.3	68.5	262.6	648.2
1976	987.7	70.3	258.2	659.1
1977	998.9	71.5	260.5	666.9
1978	1,013.0	74.9	260.6	677.5
1979	1,029.8	77.8	263.5	688.5
1980	1,051.8	83.5	266.5	701.8
1981	1,069.8	86.2	269.5	714.1
1982	1,083.4	90.5	271.7	721.2
1983	1,095.1	91.9	273.5	729.7
1984	1,102.4	93.7	271.9	736.8
1985[R]	1,118.7	94.1	271.2	753.4
1986	1,134.1	93.8	271.0	769.3
Steel	935.3	92.6	267.7	575.0
Plastic[c]	142.0	1.1	3.0	137.9
Other	56.8	.1	.3	56.4

a. Includes data for Alaska subsequent to 1960; excludes service pipe. Data not adjusted to common diameter equivalent. Mileage shown as of end of each year.

b. Includes 5.0 thousand miles of Underground Storage pipe in 1975, 5.3 thousand miles in 1976, 5.2 thousand miles in 1977, 6.0 thousand miles in 1978, 5.7 thousand miles in 1979, 6.2 thousand miles in 1980, 7.8 thousand miles in 1981, 5.5 thousand miles in 1982, 5.9 thousand miles in 1983 and 1984, 6.0 thousand miles in 1985 and 1986, some of which was formerly included in Field and Gathering pipe.

c. Includes fiberglass.

R–Revised.

TABLE 5-2
GAS UTILITY INDUSTRY MILES OF PIPELINE AND MAIN, BY STATE, 1960-1986[a]

Division and State	1960	1965	1970	1975	1980	1985[R]	1986
United States	**630,950**	**767,520**	**913,267**	**979,263**	**1,051,774**	**1,118,735**	**1,134,056**
New England	**19,140**	**22,090**	**25,686**	**26,580**	**27,794**	**28,476**	**28,802**
Connecticut	4,300	4,960	5,728	5,991	6,710	6,550	6,612
Maine	390	390	705	461	395	411	415
Massachusetts	11,910	13,740	15,609	16,452	16,719	17,359	17,565
New Hampshire	630	800	1,041	1,093	1,163	1,283	1,293
Rhode Island	1,720	1,990	2,299	2,248	2,403	2,463	2,490
Vermont	190	210	304	335	404	410	427
Middle Atlantic	**92,600**	**102,580**	**111,644**	**113,993**	**116,439**	**121,682**	**122,818**
New Jersey	15,140	18,320	21,052	22,077	22,838	24,598	25,133
New York	33,020	36,580	39,955	40,535	41,394	42,334	42,578
Pennsylvania	44,440	47,680	50,637	51,381	52,207	54,750	55,107
East North Central	**113,420**	**147,640**	**178,268**	**190,172**	**200,361**	**206,889**	**209,076**
Illinois	27,770	38,750	46,683	50,252	53,375	54,541	54,960
Indiana	14,800	20,240	25,264	27,267	28,227	30,608	31,319
Michigan	21,860	30,370	37,699	40,203	44,100	44,694	45,130
Ohio	40,150	44,690	49,393	51,505	52,667	54,110	54,419
Wisconsin	8,840	13,590	19,229	20,945	21,992	22,936	23,248
West North Central	**67,640**	**82,250**	**99,536**	**106,134**	**112,901**	**115,855**	**118,070**
Iowa	9,970	13,630	16,654	17,273	17,892	18,254	18,282
Kansas	25,860	28,780	32,802	34,280	36,893	37,093	38,136
Minnesota	8,090	10,680	14,162	15,264	16,720	18,259	19,138
Missouri	11,950	15,150	18,654	20,897	21,854	21,875	22,034
Nebraska	8,910	10,300	12,627	13,333	14,079	14,381	14,436
North Dakota	1,100	1,560	2,332	2,533	2,854	3,208	3,231
South Dakota	1,760	2,150	2,305	2,554	2,609	2,785	2,813
South Atlantic	**59,100**	**74,180**	**92,738**	**100,496**	**103,960**	**112,722**	**114,677**
Delaware	830	1,160	1,270	1,322	1,336	1,428	1,455
District of Columbia	1,160	1,150	1,164	1,163	1,157	1,161	1,163
Florida	6,400	8,330	11,435	13,100	12,902	14,974	15,178
Georgia	10,580	14,600	19,549	22,679	24,676	27,190	28,011
Maryland	5,400	6,710	7,986	8,534	8,704	8,888	8,974
North Carolina	4,830	7,080	10,605	11,100	11,842	13,298	13,647
South Carolina	3,320	6,090	8,514	9,667	9,825	11,092	11,140
Virginia	6,490	8,190	10,451	10,944	11,226	12,315	12,959
West Virginia	20,090	20,870	21,764	21,987	22,292	22,376	22,150
East South Central	**44,930**	**54,390**	**65,441**	**70,345**	**73,807**	**78,280**	**79,255**
Alabama	11,380	13,860	16,607	17,832	19,556	20,763	21,120
Kentucky	13,130	15,470	18,295	19,816	19,981	20,784	20,989
Mississippi	11,420	13,460	16,403	17,056	17,911	18,684	18,820
Tennessee	9,000	11,600	14,136	15,641	16,359	18,049	18,326
West South Central	**127,120**	**150,260**	**182,752**	**194,630**	**216,394**	**237,811**	**242,607**
Arkansas	10,380	13,060	16,422	17,474	18,312	20,399	20,483
Louisiana	24,970	30,310	36,921	38,855	41,689	44,784	45,120
Oklahoma	19,590	23,850	28,532	32,798	37,132	42,620	43,668
Texas	72,180	83,040	100,870	105,693	119,261	130,008	133,336
Mountain	**44,940**	**59,000**	**71,848**	**83,184**	**97,391**	**107,410**	**107,423**
Arizona	9,630	11,120	13,379	15,197	16,669	17,341	17,573
Colorado	8,080	12,240	15,870	19,192	23,108	26,837	26,681
Idaho	1,490	2,770	3 226	3,785	4,177	4,589	4,701
Montana	5,120	5,970	6,324	7,435	8,822	8,965	9,040
Nevada	660	1,940	2,470	2,945	3,554	3,933	4,107
New Mexico	13,160	15,410	19,050	21,657	24,581	26,684	26,251
Utah	3,400	4,940	5,609	6,577	7,846	9,050	9,066
Wyoming	3,400	4,610	5,920	6,396	8,634	10,011	10,004
Pacific	**62,060**	**75,130**	**85,354**	**93,539**	**102,727**	**109,610**	**111,328**
Alaska	b	250	667	868	1,186	1,511	1,511
California	52,280	60,650	66,328	72,493	79,625	84,718	86,064
Hawaii	440	490	530	581	587	590	598
Oregon	3,940	6,360	8,014	8,838	9,709	10,390	10,585
Washington	5,400	7,380	9,815	10,759	11,620	12,401	12,570

a. Includes field, gathering, underground storage, transmission and distribution main but excludes service pipe. Data not adjusted to common diameter equivalent. Mileage shown as of end of year.
b. Not available.
R–Revised.

TABLE 5-3
GAS UTILITY INDUSTRY MILES OF PIPELINE AND MAIN, BY STATE AND TYPE OF MAIN, 1986[a]

Division and State	Total	Field and Gathering	Transmission Pipeline[b]	Distribution Main
United States	**1,134,056**	**93,770**	**270,967**	**769,219**
New England	**28,802**	**0**	**1,711**	**27,091**
Connecticut	6,612	0	506	6,106
Maine	415	0	77	338
Massachusetts	17,565	0	865	16,700
New Hampshire	1,293	0	150	1,143
Rhode Island	2,490	0	58	2,432
Vermont	427	0	55	372
Middle Atlantic	**122,818**	**7,171**	**17,838**	**97,789**
New Jersey	25,133	0	1,482	23,651
New York	42,578	547	3,672	38,359
Pennsylvania	55,107	6,624	12,704	35,779
East North Central	**209,076**	**4,479**	**35,138**	**169,459**
Illinois	54,960	81	9,269	45,610
Indiana	31,319	218	5,606	25,495
Michigan	45,130	152	7,094	37,884
Ohio	54,419	4,028	9,965	40,426
Wisconsin	23,248	0	3,204	20,044
West North Central	**118,070**	**9,209**	**38,949**	**69,912**
Iowa	18,282	74	5,830	12,378
Kansas	38,136	8,854	15,023	14,259
Minnesota	19,138	0	4,200	14,938
Missouri	22,034	25	4,250	17,759
Nebraska	14,436	46	7,540	6,850
North Dakota	3,231	194	1,147	1,890
South Dakota	2,813	16	959	1,838
South Atlantic	**114,677**	**8,488**	**21,446**	**84,743**
Delaware	1,455	0	191	1,264
District of Columbia	1,163	0	24	1,139
Florida	15,178	0	2,953	12,225
Georgia	28,011	0	4,983	23,028
Maryland	8,974	23	807	8,144
North Carolina	13,647	0	2,356	11,291
South Carolina	11,140	0	2,351	8,789
Virginia	12,959	132	2,487	10,340
West Virginia	22,150	8,333	5,294	8,523
East South Central	**79,255**	**3,920**	**27,188**	**48,147**
Alabama	21,120	7	5,345	15,768
Kentucky	20,989	3,663	7,312	10,014
Mississippi	18,820	250	9,634	8,936
Tennessee	18,326	0	4,897	13,429
West South Central	**242,607**	**38,323**	**88,413**	**115,871**
Arkansas	20,483	1,349	6,594	12,540
Louisiana	45,120	2,932	24,674	17,514
Oklahoma	43,668	11,946	13,972	17,750
Texas	133,336	22,096	43,173	68,067
Mountain	**107,423**	**21,172**	**28,914**	**57,337**
Arizona	17,573	2	5,132	12,439
Colorado	26,681	4,192	6,209	16,280
Idaho	4,701	0	1,525	3,176
Montana	9,040	2,249	3,316	3,475
Nevada	4,107	8	1,132	2,967
New Mexico	26,251	10,352	6,895	9,004
Utah	9,066	1,032	1,089	6,945
Wyoming	10,004	3,337	3,616	3,051
Pacific	**111,328**	**1,008**	**11,350**	**98,970**
Alaska	1,511	7	314	1,190
California	86,064	1,001	7,642	77,421
Hawaii	598	0	0	598
Oregon	10,585	0	1,408	9,177
Washington	12,570	0	1,986	10,584

a. Excludes 399,539 miles of service pipe. Data not adjusted to common diameter equivalent. Mileage shown as of end of year.
b. Includes 5,983 miles of underground storage pipe.

TABLE 5-4
GAS UTILITY INDUSTRY MILES OF PIPELINE AND MAIN INSTALLED DURING 1986, BY STATE AND BY TYPE OF PIPE[a]

Division and State	Total[b]	Field and Gathering	Transmission Pipeline	Distribution Main			
		Steel	Steel[c]	Total	Steel	Plastic[d]	Other
United States	**18,593**	**530**	**1,478**	**16,585**	**4,625**	**11,898**	**62**
New England	**415**	**0**	**16**	**399**	**72**	**327**	**0**
Connecticut	77	0	5	72	22	50	0
Maine	5	0	0	5	2	3	0
Massachusetts	276	0	6	270	34	236	0
New Hampshire	12	0	0	12	1	11	0
Rhode Island	28	0	5	23	3	20	0
Vermont	17	0	0	17	10	7	0
Middle Atlantic	**2,159**	**39**	**305**	**1,815**	**399**	**1,416**	**0**
New Jersey	672	0	31	641	166	475	0
New York	666	25	2	639	51	588	0
Pennsylvania	821	14	272	535	182	353	0
East North Central	**3,516**	**73**	**74**	**3,369**	**1,208**	**2,103**	**58**
Illinois	985	0	28	957	746	211	0
Indiana	995	0	17	978	176	802	0
Michigan	576	38	21	517	31	486	0
Ohio	545	35	8	502	213	231	58
Wisconsin	415	0	0	415	42	373	0
West North Central	**2,084**	**100**	**61**	**1,923**	**453**	**1,470**	**0**
Iowa	230	0	0	230	143	87	0
Kansas	981	100	51	830	199	631	0
Minnesota	417	0	0	417	12	405	0
Missouri	316	0	10	306	60	246	0
Nebraska	82	0	0	82	30	52	0
North Dakota	27	0	0	27	0	27	0
South Dakota	31	0	0	31	9	22	0
South Atlantic	**2,611**	**15**	**183**	**2,413**	**1,315**	**1,095**	**3**
Delaware	30	0	0	30	0	30	0
District of Columbia	11	0	1	10	3	7	0
Florida	203	0	0	203	81	122	0
Georgia	827	0	19	808	780	28	0
Maryland	143	0	9	134	61	73	0
North Carolina	428	0	67	361	43	318	0
South Carolina	340	0	68	272	63	209	0
Virginia	546	10	1	535	284	248	3
West Virginia	83	5	18	60	0	60	0
East South Central	**1,221**	**8**	**187**	**1,029**	**448**	**580**	**1**
Alabama	436	0	112	324	157	167	0
Kentucky	248	5	29	214	141	73	0
Mississippi	218	0	43	175	53	121	1
Tennessee	319	0	3	316	97	219	0
West South Central	**2,300**	**127**	**507**	**1,666**	**218**	**1,448**	**0**
Arkansas	121	32	6	83	12	71	0
Louisiana	161	0	23	138	54	84	0
Oklahoma	286	35	6	245	8	237	0
Texas	1,732	60	472	1,200	144	1,056	0
Mountain	**1,624**	**140**	**89**	**1,395**	**179**	**1,216**	**0**
Arizona	501	0	22	479	46	433	0
Colorado	495	8	42	445	69	376	0
Idaho	45	0	1	44	0	44	0
Montana	96	18	0	78	6	72	0
Nevada	163	0	0	163	3	160	0
New Mexico	206	57	0	149	37	112	0
Utah	28	5	23	0	0	0	0
Wyoming	90	52	1	37	18	19	0
Pacific	**2,663**	**31**	**56**	**2,576**	**333**	**2,243**	**0**
Alaska	0	0	0	0	0	0	0
California	2,172	31	35	2,106	216	1,890	0
Hawaii	9	0	0	9	0	9	0
Oregon	203	0	21	182	61	121	0
Washington	279	0	0	279	56	223	0

a. Excludes service pipe. Data not adjusted to common diameter equivalent.
b. Does not include 242 miles of plastic and other pipe classified as field and gathering and transmission pipe.
c. Includes 17 miles of underground storage pipe.
d. Includes fiberglass.

TABLE 5–5
GAS UTILITY INDUSTRY REQUIREMENTS OF STEEL PIPE FOR NEW CONSTRUCTION AND MAINTENANCE AND REPAIR BY SIZE OF PIPE, 1986

(Miles)

Size of Pipe	Total	New Construction	Maintenance Repair
Normal Pipe Size—Inches			
⅞ and less	919.9	823.0	96.9
1	232.4	170.0	62.4
1¼	421.2	355.2	66.0
1½	963.9	955.6	8.3
Outside Diameter—Inches			
2⅜	2,669.9	2,115.3	554.6
3½	255.6	229.6	26.0
4½	1,176.2	973.6	202.6
6⅝	1,195.2	1,031.7	163.5
8⅝	688.5	470.2	218.3
10¾	232.4	206.7	25.7
12¾	428.4	294.6	133.8
14	23.5	23.2	0.3
16	191.2	156.9	34.3
18	19.2	0.7	18.5
20	199.0	147.8	51.2
22	0.1	0.1	0.0
24	55.9	44.5	11.4
26	9.8	5.0	4.8
30	76.5	71.1	5.4
34	1.3	1.3	0.0
36	150.8	150.0	0.8
42	14.2	14.2	0.0
Other Sizes	0.0	0.0	0.0
Total	**9,925.1**	**8,240.3**	**1,684.8**

TABLE 5–6
GAS UTILITY INDUSTRY INSTALLED COMPRESSOR HORSEPOWER, 1960–1985

(Thousands)

Year	Total	Transmission
1960	7,843	6,359
1965	9,708	7,736
1966	10,242	8,182
1967	10,746	8,596
1968	11,438	9,146
1969	12,742	9,375
1970	13,150	9,692
1971	14,142	10,763
1972	14,506	10,976
1973	14,858	11,272
1974	15,181	11,883[a]
1975	15,413	12,069
1976	15,472	12,046
1977	15,553	12,105
1978	15,824	12,255
1979	16,030	12,437
1980	16,375	13,091
1981	16,601	13,270
1982[R]	16,965	13,460
1983[R]	16,900	13,426
1984[R]	16,880	13,368
1985[R]	16,567	13,131
1986	16,447	13,153

a. Not comparable to previous years due to reclassification.
R–Revised.

TABLE 5-7
SELECTED STATISTICS FOR MAJOR TRANSMISSION COMPANIES, 1986

Name of Transmission System	No. of Transmission Compressor Stations	Total Miles of Transmission Pipeline	Peak Day Sendout (MMCF)	Operating Revenues ($000,000)
Algonquin Gas Transmission Co.	5	962	934	$ 553.1
ANR Pipeline Co.	48	8,638	2,188	1,704.0
Colorado Interstate Gas Co.	27	2,728	1,025	553.3
Columbia Gas Transmission Co.	112	10,924	5,762	2,405.7
Columbia Gulf Transmission Co.	13	4,251	2,092	219.5
Consolidated Gas Transmission Corp.	43	3,478	2,115	1,327.9
East Tennessee Natural Gas Co.	12	1,023	386	217.1
El Paso Natural Gas Co.	89	10,924	1,873	1,823.2
Enron-Northern Natural	169	15,418	3,371	1,908.1
Florida Gas Transmission Co.	20	4,603	933	540.3
Midwestern Gas Transmission Co.	15	903	1,187	587.9
Mississippi River Transmission Co.	15	1,968	867	480.1
Natural Gas Pipeline Co. of America	71	8,177	3,896	2,011.1
Pacific Gas Transmission Co.	12	799	1,094	605.6
Panhandle Eastern Pipeline Co.	68	6,676	1,607	1,291.8
South Georgia Natural Gas Co.	2	767	a	59.7
Southern Natural Gas Co.	47	7,679	2,840	1,180.9
Tenneco, Inc.	65	14,050	3,713	2,112.7
Texas Eastern Transmission Co.	71	9,634	4,410	2,141.8
Texas Gas Transmission Corp.	24	5,574	3,344	940.3
Transcontinental Gas Pipeline Corp.	40	10,302	8,403	1,959.8
Transwestern Pipeline Co.	136	3,813	810	432.8
Trunkline Gas Co.	21	4,020	1,141	954.7
United Gas Pipeline Co.	31	7,286	2,657	880.2
Williams Natural Gas Co.	43	5,835	1,522	666.8

a. Not available.
Source: Federal Energy Regulatory Commission, FERC Form No. 2: Annual Report of Natural Gas Companies (Class A and Class B), 1986.

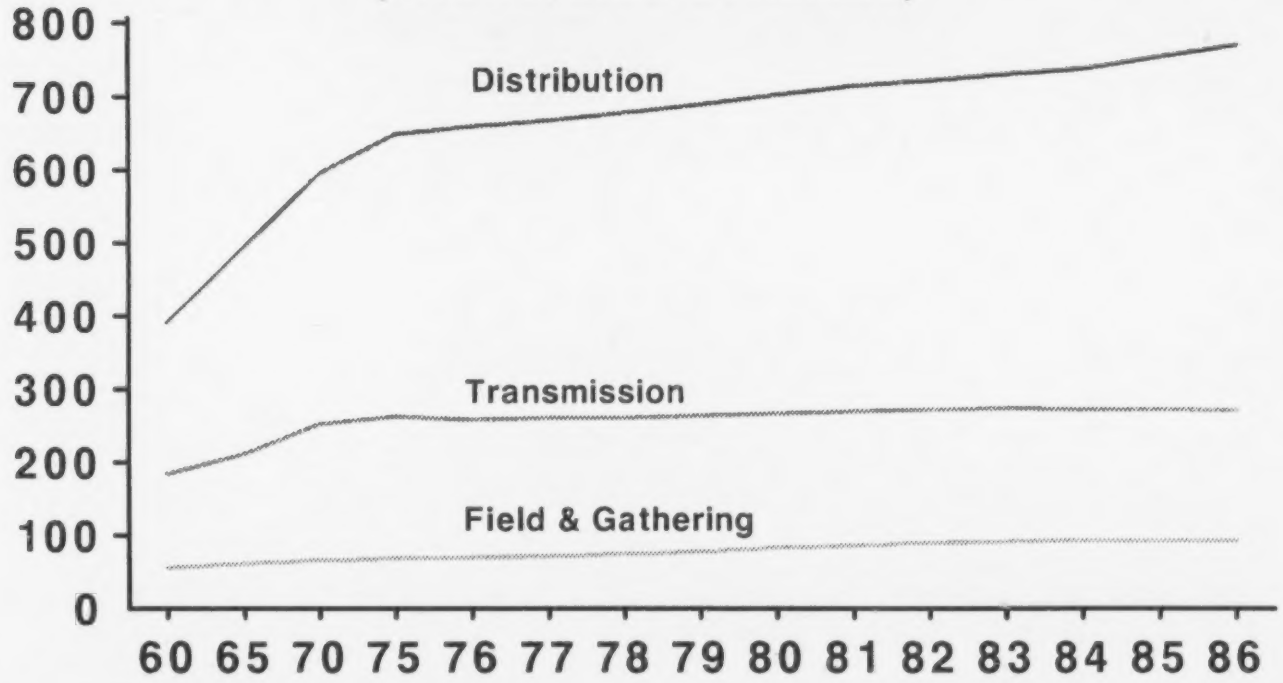
SECTION 6
SALES—QUANTITIES

	1986	% Change 86/85
Gas Utility Industry		
(Trillions of Btu)		
Total Sales	11,126.4	−11.8
Residential	4,380.1	− 2.9
Commercial	2,238.4	− 4.3
Industrial	4,340.7	−23.0
Industrial Only	2,892.0	−21.5
Electric Generation	1,448.7	−25.7
Other	167.2	+29.1
Resale	7,611.2	−26.9

NOTE: Part of the decline in Gas Utility Sales are due to the continued increase of activity in spot market sales and the resulting transportation of gas to end-users. For volumes of gas transported to end-users (and therefore not sold by gas utilities) see Table 3-15.

CHART 5-1

GAS UTILITY INDUSTRY MILES OF PIPELINE AND MAIN (THOUSANDS OF MILES)



REFERENCE: TABLE 5-1

TABLE 6-1
GAS UTILITY INDUSTRY SALES, BY CLASS OF SERVICE
1960-1986[a]

(Trillions of Btu)

Year	Total	Residential	Commercial	Industrial[b]	Other[b]
1960	9,287.7	3,188.1	919.8	4,709.4	470.4
1961	9,589.0	3,321.0	988.1	4,785.6	494.3
1962	10,234.8	3,536.9	1,092.9	5,100.1	504.9
1963	10,766.3	3,668.0	1,136.6	5,438.1	523.6
1964	11,591.2	3,869.7	1,273.5	5,912.0	536.0
1965	11,980.3	3,999.0	1,344.8	6,146.5	490.0
1966	12,859.1	4,175.4	1,462.8	6,653.3	567.6
1967	13,488.3	4,365.3	1,577.6	7,014.3	531.1
1968	14,472.4	4,552.7	1,704.9	7,595.1	619.7
1969	15,391.6	4,820.4	1,878.1	8,135.8	557.3
1970	16,043.5	4,923.7	2,006.6	8,439.2	674.0
1971	16,685.7	5,040.1	2,155.5	8,645.5	844.7
1972	17,082.1	5,141.8	2,275.7	8,775.7	888.8
1973	16,479.9	4,993.6	2,280.8	8,370.8	834.7
1974	16,000.3	4,864.8	2,293.4	8,153.2	689.0
1975	14,862.9	4,991.0	2,386.8	6,837.1	648.0
1976	14,813.5	5,014.2	2,422.6	7,192.0	184.6
1977	14,340.9	4,946.3	2,409.4	6,796.4	188.9
1978	14,748.4	5,106.7	2,499.5	6,931.5	210.7
1979	15,440.3	5,083.1	2,485.8	7,641.4	230.0
1980	15,413.2	4,826.1	2,453.3	7,956.6	177.2
1981	15,374.8	4,609.7	2,375.4	8,239.3	150.4
1982	14,182.7	4,769.8	2,471.3	6,794.3	147.3
1983	12,857.5	4,449.6	2,298.2	5,969.4	140.2
1984	13,161.7	4,628.3	2,396.0	5,991.0	146.4
1985[R]	12,615.2	4,513.0	2,338.0	5,634.7	129.5
1986	11,126.4	4,380.1	2,238.4	4,340.7	167.2

a. Excludes data for Alaska prior to 1961.
b. Prior to 1976, "Other" electric generation (see Table 6-12) is included in the "Other" class of service. For 1976 and beyond all electric generation is included in the Industrial category.
R–Revised.

TABLE 6-2
GAS UTILITY INDUSTRY SALES, BY CLASS OF SERVICE AND TYPE OF COMPANY 1980-1986[a]

(Trillions of Btu)

	1980	1981	1982	1983	1984	1985	1986
Distribution							
Total	**3,983**	**3,136**	**2,981**	**2,925**	**3,078**	**3,803**	**3,495**
Residential	1,718	1,240	1,259	1,282	1,358	1,696	1,665
Commercial	901	737	771	727	780	948	921
Industrial	1,334	1,145	938	897	919	1,131	882
Other	30	14	13	20	21	28	27
Transmission							
Total	**2,616**	**2,689**	**2,087**	**1,826**	**1,711**	**1,708**	**1,496**
Residential	2	1	1	1	1	1	1
Commercial	8	7	7	3	4	3	5
Industrial	2,577	2,657	2,055	1,806	1,687	1,689	1,437
Other	29	24	24	17	20	15	53
Integrated							
Total	**4,423**	**5,197**	**4,910**	**4,203**	**4,290**	**2,922**	**2,341**
Residential	1,359	1,719	1,799	1,560	1,626	1,086	991
Commercial	655	778	804	739	782	522	453
Industrial	2,359	2,645	2,254	1,864	1,841	1,294	868
Other	50	55	53	40	41	20	29
Combination							
Total	**3,705**	**3,681**	**3,543**	**3,268**	**3,419**	**3,578**	**3,234**
Residential	1,454	1,369	1,426	1,335	1,358	1,464	1,458
Commercial	763	725	755	703	690	728	724
Industrial	1,446	1,549	1,325	1,192	1,331	1,339	1,009
Other	42	38	38	39	39	47	43
Municipals							
Total	**686**	**672**	**662**	**635**	**664**	**605**	**561**
Residential	293	281	285	271	286	266	264
Commercial	126	128	134	126	141	137	136
Industrial	241	244	224	212	213	182	145
Other	26	19	20	25	25	20	16

a. All electric generation is included in the Industrial category.
Note: This table depicts total sales as shown on Table 6-1, by company type. Also, data by company type not directly comparable from year to year due to acquisitions and mergers. See page ix.

TABLE 6-3
GAS UTILITY INDUSTRY SALES, BY QUARTER AND CLASS OF SERVICE
1960-1986

(Trillions of Btu)

Year and Quarter	Total	Residential	Commercial	Industrial[a]	Other[a]
1960					
First	3,124.9	1,459.0	404.6	1,119.7	141.6
Second	2,171.3	679.8	188.0	1,197.1	106.4
Third	1,676.1	265.5	92.7	1,222.1	95.8
Fourth	2,309.7	780.0	232.8	1,170.3	126.6
1965					
First	3,946.6	1,811.2	575.2	1,424.3	135.9
Second	2,818.1	878.9	291.2	1,538.8	109.2
Third	2,212.1	346.1	144.9	1,603.3	117.8
Fourth	3,001.0	961.1	332.8	1,580.0	127.1
1970					
First	5,262.3	2,286.9	867.7	1,939.2	168.6
Second	3,808.1	1,024.3	423.8	2,201.4	158.4
Third	3,041.5	420.7	218.6	2,236.1	166.0
Fourth	3,931.6	1,191.8	496.5	2,062.5	181.0
1975					
First	4,931.5	2,192.8	970.4	1,598.7	169.6
Second	3,520.9	1,137.7	536.3	1,715.9	131.0
Third	2,794.9	474.9	301.2	1,842.2	176.6
Fourth	3,615.6	1,185.6	579.0	1,680.2	170.8
1980					
First	5,433.8	2,218.7	1,031.1	2,118.8	65.2
Second	3,258.8	914.7	464.5	1,845.8	33.8
Third	2,753.6	405.4	300.0	2,019.5	28.7
Fourth	3,967.0	1,287.3	657.7	1,972.5	49.5
1981					
First	5,311.9	2,170.9	1,007.6	2,075.6	57.8
Second	3,385.2	797.5	430.2	2,127.5	30.0
Third	2,792.7	399.5	293.6	2,076.8	22.8
Fourth	3,885.0	1,241.8	644.0	1,959.4	39.8
1982					
First	5,350.7	2,318.2	1,086.6	1,888.2	57.7
Second	3,020.3	880.9	465.1	1,645.6	28.7
Third	2,416.1	404.4	297.2	1,692.4	22.1
Fourth	3,395.6	1,166.3	622.4	1,568.1	38.8
1983					
First	4,439.2	1,917.5	921.9	1,547.0	52.8
Second	2,835.9	935.1	477.3	1,393.3	30.2
Third	2,220.5	382.2	277.4	1,540.6	20.3
Fourth	3,361.9	1,214.9	621.6	1,488.5	36.9
1984					
First	4,918.2	2,199.7	1,050.1	1,608.3	60.1
Second	2,821.1	882.5	464.2	1,446.0	28.4
Third	2,182.9	383.7	276.5	1,504.2	18.5
Fourth	3,239.5	1,162.4	605.2	1,432.5	39.4
1985[R]					
First	4,761.7	2,161.7	1,030.7	1,515.3	54.0
Second	2,441.2	740.5	399.9	1,277.0	23.8
Third	2,081.9	381.9	269.2	1,413.9	16.9
Fourth	3,330.4	1,228.9	638.2	1,428.5	34.8
1986					
First	4,303.0	2,033.6	971.5	1,244.1	53.8
Second	2,215.0	738.2	386.4	1,051.4	39.0
Third	1,716.3	386.1	260.6	1,040.7	28.9
Fourth	2,892.1	1,222.2	619.9	1,004.5	45.5

a. Prior to 1976, "Other" electric generation (see Table 6-12) is included in the "Other" class of service. For 1976 and beyond all electric generation is included in the Industrial category.

R–Revised.

TABLE 6-5
GAS UTILITY INDUSTRY SALES, BY STATE, 1960-1986[a]

(Trillions of Btu)

Division and State	1960	1965	1970	1975	1980	1985[R]	1986
United States	**9,287.7**	**11,980.3**	**16,043.5**	**14,862.9**	**15,413.2**	**12,615.2**	**11,126.4**
New England	**120.5**	**172.0**	**236.7**	**243.5**	**298.2**	**348.5**	**315.1**
Connecticut	31.5	44.0	61.4	61.0	73.4	78.6	79.1
Maine	1.3	1.3	1.8	2.0	2.2	m2.6	2.5
Massachusetts	72.4	105.0	139.5	145.9	182.5	220.9	190.0
New Hampshire	3.0	4.3	6.7	7.8	9.5	10.6	10.8
Rhode Island	11.9	16.9	25.2	23.4	26.4	30.6	27.5
Vermont	0.4	0.5	2.1	3.4	4.1	5.2	5.2
Middle Atlantic	**993.9**	**1,293.4**	**1,651.0**	**1,495.1**	**1,658.2**	**1,499.9**	**1,415.8**
New Jersey	125.9	194.1	294.9	257.9	322.7	334.8	330.6
New York	358.0	475.6	595.9	581.9	600.8	639.1	588.6
Pennsylvania	510.0	623.7	760.2	655.4	734.7	526.0	496.6
East North Central	**1,872.4**	**2,724.4**	**3,896.4**	**3,749.5**	**3,658.1**	**2,897.2**	**2,614.6**
Illinois	509.5	746.5	1,140.3	1,112.4	1,100.3	900.9	870.7
Indiana	203.9	344.6	505.0	458.8	475.9	399.0	336.6
Michigan	357.2	545.3	839.4	885.8	850.0	667.6	571.2
Ohio	712.5	891.0	1,084.9	929.8	888.0	624.7	577.3
Wisconsin	89.3	197.0	326.8	362.7	343.9	305.0	258.8
West North Central	**1,040.4**	**1,316.0**	**1,743.7**	**1,592.4**	**1,412.3**	**1,144.0**	**1,034.2**
Iowa	157.7	205.6	292.5	298.8	255.8	216.9	199.3
Kansas	305.6	350.4	459.5	410.4	364.6	248.7	210.8
Minnesota	160.4	230.9	324.3	295.0	267.1	250.8	234.8
Missouri	257.2	333.2	421.0	344.5	326.8	256.2	242.2
Nebraska	126.7	153.7	197.8	187.2	152.5	124.0	103.3
North Dakota	8.5	15.6	18.9	24.7	21.6	22.6	20.8
South Dakota	24.3	26.6	29.7	31.8	23.9	24.8	23.0
South Atlantic	**649.8**	**871.8**	**1,311.1**	**1,106.1**	**1,255.7**	**1,095.0**	**1,072.0**
Delaware	8.9	16.6	24.3	19.3	22.7	22.6	22.2
District of Columbia	18.5	21.8	27.1	24.8	27.6	28.0	29.8
Florida	91.1	144.2	218.7	127.4	232.2	232.9	239.8
Georgia	188.5	210.3	333.8	312.5	299.7	270.5	237.3
Maryland	65.9	96.8	145.1	138.8	154.6	118.5	122.5
North Carolina	41.6	73.9	151.2	104.8	143.2	125.3	130.4
South Carolina	40.6	73.9	120.1	118.3	112.3	94.5	93.2
Virginia	64.3	91.3	133.9	116.0	134.8	124.3	124.7
West Virginia	130.4	143.0	156.9	144.3	128.6	78.4	72.1
East South Central	**600.1**	**729.7**	**995.4**	**752.8**	**807.9**	**625.3**	**523.3**
Alabama	180.3	224.8	290.0	227.9	224.6	179.2	155.3
Kentucky	126.6	142.1	189.9	180.0	175.9	141.7	119.7
Mississippi	146.2	177.1	265.6	141.3	191.5	140.9	103.3
Tennessee	147.0	185.7	249.9	203.5	216.0	163.5	145.0
West South Central	**2,216.5**	**2,408.5**	**3,031.0**	**2,973.6**	**3,534.9**	**2,330.4**	**2,042.1**
Arkansas	177.3	228.6	339.9	219.4	207.4	142.9	111.6
Louisiana	536.8	592.0	742.1	457.3	515.2	285.2	207.3
Oklahoma	248.8	255.0	275.6	417.9	472.3	263.4	157.7
Texas	1,253.6	1,332.9	1,673.4	1,878.9	2,340.0	1,638.9	1,565.5
Mountain	**576.4**	**703.8**	**926.1**	**928.6**	**841.9**	**655.4**	**507.4**
Arizona	110.9	127.3	168.1	144.4	136.4	119.4	71.3
Colorado	160.0	196.5	253.6	269.2	242.3	191.6	165.0
Idaho	22.0	34.8	43.1	51.2	45.4	33.0	20.9
Montana	51.3	67.4	78.8	79.8	54.1	44.0	37.3
Nevada	14.2	29.7	56.0	61.3	62.1	41.5	31.7
New Mexico	112.9	106.2	135.6	142.5	125.7	74.7	59.8
Utah	73.1	101.8	119.1	119.4	121.7	113.2	91.6
Wyoming	32.0	40.1	71.8	60.8	54.3	38.0	29.8
Pacific	**1,217.7**	**1,760.7**	**2,252.1**	**2,021.3**	**1,945.9**	**2,019.5**	**1,601.9**
Alaska	b	5.2	16.6	30.7	32.3	42.6	42.3
California	1,115.4	1,580.1	1,986.8	1,735.6	1,700.0	1,762.9	1,375.7
Hawaii	1.6	2.0	2.8	3.6	3.5	3.1	3.1
Oregon	32.0	59.0	88.1	86.8	76.4	77.2	63.5
Washington	68.7	114.4	157.8	164.6	133.8	133.7	117.3

a. Excludes sales for resale.
b. Not available.
R-Revised.

TABLE 6-6
GAS UTILITY INDUSTRY SALES OF GAS FOR RESALE, BY STATE
1960-1986

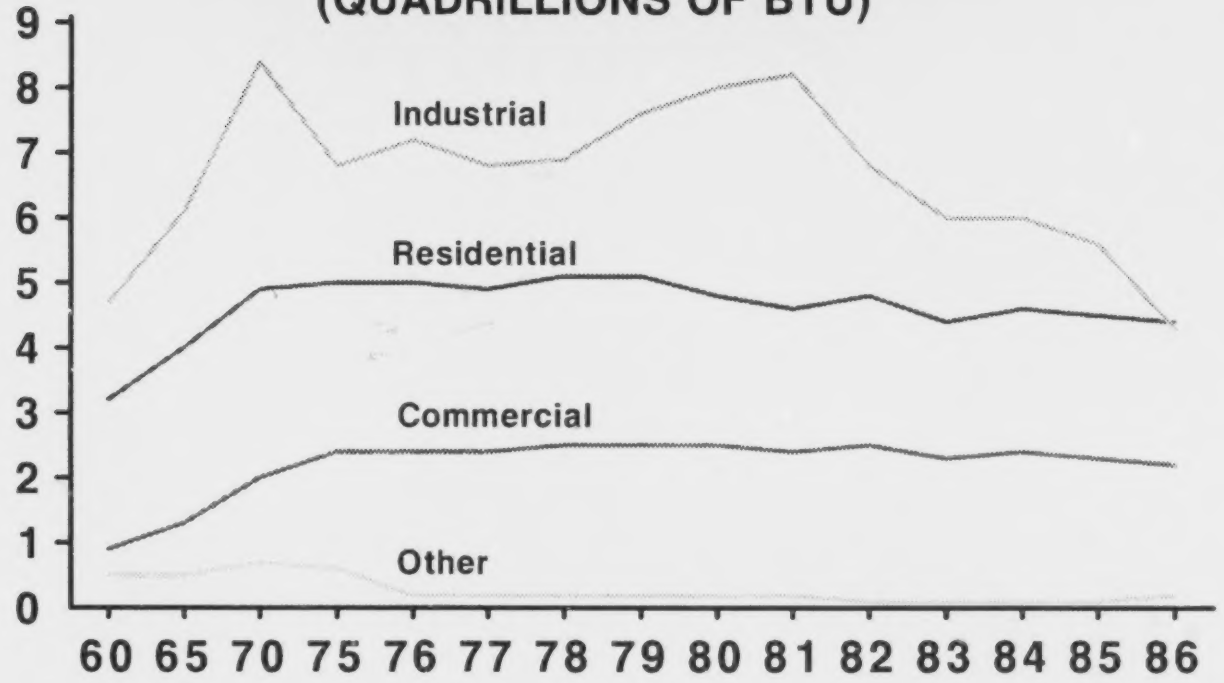
(Trillions of Btu)

Division and State	1960[a]	1965[a]	1970	1975	1980	1985	1986
United States	**9,257.8**	**12,566.4**	**17,575.6**	**14,504.5**	**15,708.1**	**10,408.1**	**7,611.2**
New England	**135.5**	**194.0**	**276.0**	**271.5**	**299.8**	**291.8**	**262.9**
Connecticut			83.0	82.7	76.4	67.2	62.3
Maine			0.0	0.0	0.0	0.0	0.0
Massachusetts			156.6	160.0	188.8	188.1	164.4
New Hampshire			8.6	5.8	6.8	7.6	7.5
Rhode Island			27.8	21.8	27.9	28.9	28.7
Vermont			0.0	1.3	0.0	0.0	0.0
Middle Atlantic	**1,337.4**	**1,827.4**	**2,433.3**	**1,901.6**	**2,334.0**	**1,671.4**	**1,305.9**
New Jersey			491.9	370.2	510.6	404.7	356.0
New York			802.5	572.2	707.5	566.3	385.6
Pennsylvania			1,138.9	959.2	1,115.9	700.4	564.3
East North Central	**1,999.8**	**3,296.3**	**5,249.0**	**4,542.8**	**4,442.0**	**2,945.1**	**2,054.0**
Illinois			1,688.6	1,537.1	1,613.3	1,147.1	788.9
Indiana			513.6	406.8	461.4	325.8	336.6
Michigan			698.5	759.4	615.8	329.7	141.0
Ohio			1,892.4	1,356.1	1,315.3	774.8	522.4
Wisconsin			455.9	483.4	436.1	367.7	265.1
West North Central	**759.7**	**975.2**	**1,306.9**	**1,144.5**	**1,043.9**	**903.9**	**841.2**
Iowa			271.0	259.7	208.9	160.8	147.0
Kansas			206.4	169.7	149.4	127.6	110.6
Minnesota			272.6	239.0	239.1	225.6	277.4
Missouri			405.2	338.0	337.8	275.0	249.8
Nebraska			124.7	111.7	86.4	73.1	68.0
North Dakota			5.2	5.5	4.9	17.4	16.4
South Dakota			21.8	20.8	17.5	24.4	22.0
South Atlantic	**1,223.6**	**1,605.2**	**1,981.1**	**1,372.5**	**1,470.3**	**893.7**	**694.5**
Delaware			1.1	1.2	1.2	1.8	1.6
District of Columbia			0.0	0.0	0.0	0.0	0.0
Florida			63.4	82.7	94.7	91.8	85.9
Georgia			327.0	315.5	308.7	257.7	179.0
Maryland			183.1	151.0	184.5	110.1	98.8
North Carolina			157.9	118.5	165.8	124.7	89.0
South Carolina			166.5	127.6	135.2	83.9	62.8
Virginia			218.3	181.9	209.1	155.4	140.6
West Virginia			863.8	394.1	371.2	68.3	36.8
East South Central	**1,009.5**	**1,116.2**	**1,573.5**	**1,178.0**	**1,256.5**	**745.6**	**566.5**
Alabama			237.0	219.3	219.8	168.0	104.3
Kentucky			417.6	238.4	237.3	157.8	107.2
Mississippi			349.3	263.1	289.1	127.1	73.4
Tennessee			569.6	457.3	510.3	292.7	281.6
West South Central	**1,199.7**	**1,136.4**	**1,497.3**	**1,215.9**	**2,007.4**	**818.9**	**548.4**
Arkansas			22.6	16.1	16.0	12.9	11.9
Louisiana			854.6	569.2	661.9	268.5	138.1
Oklahoma			166.6	148.6	206.2	61.4	29.6
Texas			453.6	482.1	1,123.3	476.1	368.8
Mountain	**1,304.2**	**1,562.0**	**2,021.0**	**1,901.8**	**1,871.0**	**1,490.5**	**836.8**
Arizona			1,477.8	1,341.0	1,370.5	1,062.6	512.6
Colorado			249.0	279.6	261.8	194.8	161.1
Idaho			73.0	84.2	66.7	50.2	32.9
Montana			7.5	7.7	7.6	17.6	14.4
Nevada			5.8	9.5	9.9	10.3	9.3
New Mexico			104.9	71.8	58.6	37.8	12.8
Utah			21.3	7.4	8.4	75.8	66.8
Wyoming			81.6	100.6	87.5	41.4	26.9
Pacific	**288.4**	**853.7**	**1,237.6**	**975.9**	**980.1**	**647.2**	**501.0**
Alaska			0.0	0.0	27.4	0.0	0.0
California			680.5	346.5	436.5	145.0	121.6
Hawaii			0.0	0.0	0.0	0.0	0.0
Oregon			399.9	470.2	388.3	372.9	290.4
Washington			157.2	159.1	127.8	129.3	89.0

a. Includes natural gas only prior to 1970 and state breakdowns not available prior to 1970.

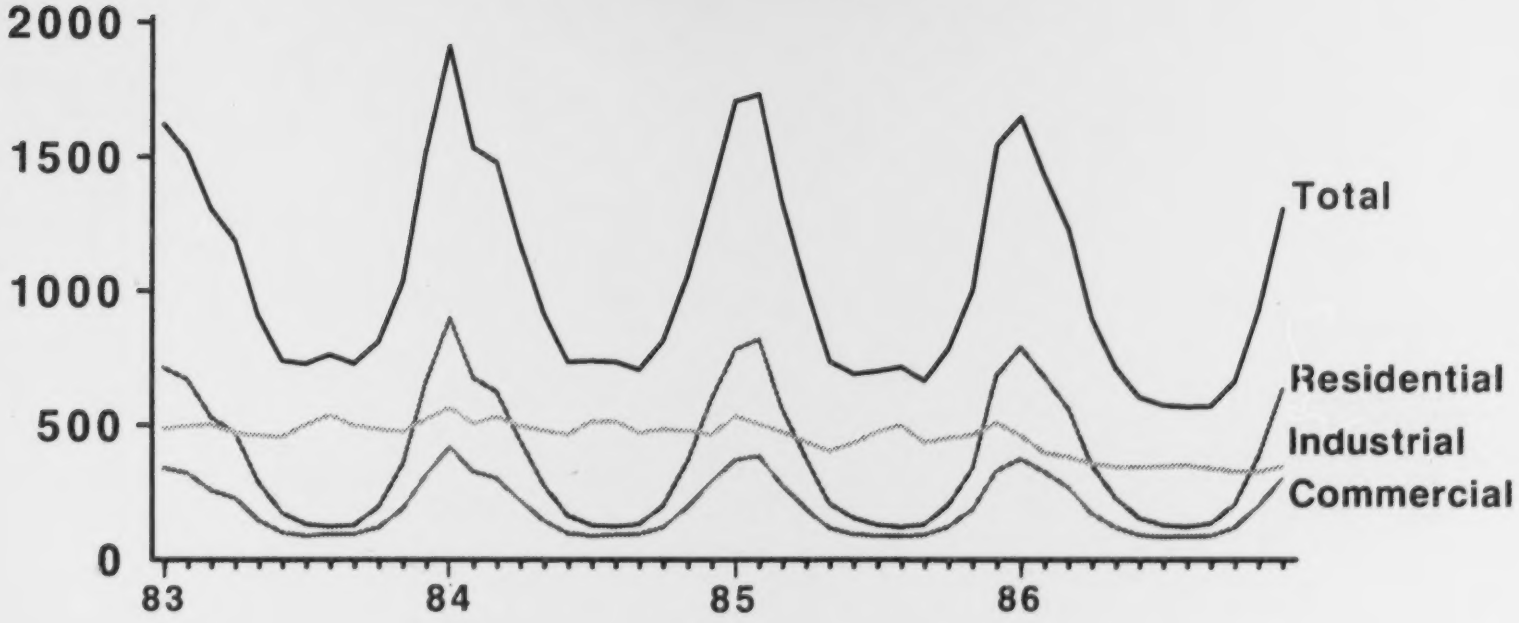
CHART 6-1

GAS UTILITY SALES BY CLASS OF SERVICE (QUADRILLIONS OF BTU)



REFERENCE: TABLE 6-1

UTILITY SALES OF NATURAL GAS TO CONSUMERS BY MONTH, 1983 - 1986
(TRILLIONS OF BTU)



REFERENCE: TABLE 6-4

TABLE 6-4
GAS UTILITY INDUSTRY TOTAL SALES, BY MONTH, 1960-1986

(Trillions of Btu)

Year	January	February	March	April	May	June	July	August	September	October	November	December	Total
1960	1,031.3	1,015.3	1,078.4	860.1	693.6	617.5	557.4	561.6	557.0	607.4	753.5	948.9	9,282.0
1965	1,304.0	1,329.2	1,313.4	1,168.2	874.9	775.0	748.0	732.8	731.3	823.5	979.4	1,197.9	11,977.6
1970	1,865.8	1,733.0	1,663.0	1,527.7	1,225.7	1,054.3	1,013.5	1,020.2	1,007.5	1,081.1	1,283.7	1,566.4	16,041.9
1971	1,886.8	1,873.5	1,769.5	1,559.1	1,312.2	1,145.2	1,053.3	1,037.4	1,023.7	1,100.9	1,305.7	1,618.4	16,685.7
1972	1,833.1	1,908.1	1,758.3	1,542.6	1,292.5	1,176.1	1,056.1	1,125.9	1,094.5	1,120.0	1,378.7	1,796.2	17,082.1
1973	1,909.4	1,752.8	1,645.3	1,500.1	1,332.1	1,143.8	1,104.8	1,069.0	1,063.1	1,136.5	1,306.7	1,516.3	16,479.9
1974	1,847.6	1,707.2	1,630.7	1,493.6	1,251.6	1,119.9	1,050.8	1,034.9	992.3	1,115.2	1,219.8	1,536.7	16,000.3
1975	1,709.5	1,633.6	1,588.4	1,455.3	1,120.8	944.8	924.7	934.8	935.4	1,009.2	1,102.8	1,503.6	14,862.9
1976	1,797.5	1,644.6	1,451.0	1,252.2	1,099.8	965.6	913.1	900.8	899.1	996.4	1,278.3	1,614.7	14,813.5
1977	1,901.9	1,682.7	1,425.7	1,168.4	974.8	904.5	875.8	866.5	860.7	976.7	1,153.5	1,549.8	14,340.9
1978	1,808.7	1,834.1	1,647.5	1,237.7	1,061.4	921.4	895.1	878.8	839.6	947.7	1,151.1	1,525.5	14,748.4
1979	1,925.1	1,923.8	1,630.5	1,356.3	1,074.6	934.9	903.7	920.9	891.3	1,038.9	1,253.4	1,587.0	15,440.4
1980	1,834.5	1,871.1	1,728.2	1,315.2	1,024.5	919.1	928.3	919.0	906.3	1,024.6	1,286.9	1,655.5	15,413.2
1981	1,957.2	1,759.7	1,595.0	1,274.4	1,107.7	1,003.1	957.8	933.4	901.5	1,045.1	1,234.9	1,605.0	15,374.8
1982	1,964.4	1,831.3	1,555.0	1,288.9	911.8	819.6	816.7	823.6	775.8	864.7	1,117.5	1,413.4	14,182.7
1983	1,619.9	1,513.6	1,305.7	1,189.1	906.1	740.7	728.5	762.7	729.3	809.6	1,029.7	1,522.6	12,857.5
1984	1,907.9	1,532.8	1,477.5	1,172.3	912.8	736.0	739.9	736.2	706.8	812.5	1,054.5	1,372.5	13,161.7
1985[R]	1,705.5	1,729.3	1,326.9	1,013.5	736.4	691.3	699.9	716.0	666.0	784.5	1,001.6	1,544.3	12,615.2
1986	1,645.7	1,426.3	1,231.0	896.6	713.6	604.8	575.8	568.9	571.6	662.8	923.9	1,305.4	11,126.4

R – Revised.

TABLE 6-7
GAS UTILITY INDUSTRY SALES, BY STATE AND CLASS OF SERVICE, 1986

(Trillions of Btu)

Division and State	Total	Class of Service				
		Residential	Commercial	Industrial	Electric Generation	Other
United States	**11,126.4**	**4,380.1**	**2,238.4**	**2,892.0**	**1,448.7**	**167.2**
New England	**315.1**	**156.9**	**90.0**	**49.7**	**16.0**	**2.5**
Connecticut	79.1	36.8	24.2	18.0	a	0.1
Maine	2.5	.5	1.3	.7	0.0	0.0
Massachusetts	190.0	96.8	53.6	22.0	15.4	2.2
New Hampshire	10.8	5.0	4.4	1.3	0.0	0.1
Rhode Island	27.5	16.0	5.4	5.4	0.6	0.1
Vermont	5.2	1.8	1.1	2.3	0.0	a
Middle Atlantic	**1,415.8**	**762.9**	**321.8**	**271.0**	**26.2**	**33.9**
New Jersey	330.6	163.8	88.8	64.8	13.0	.2
New York	588.6	339.4	121.5	88.7	13.0	26.0
Pennsylvania	496.6	259.7	111.5	117.5	.2	7.7
East North Central	**2,614.6**	**1,382.9**	**604.5**	**608.2**	**10.0**	**9.0**
Illinois	870.7	450.3	209.3	204.6	6.3	.2
Indiana	336.6	143.9	64.9	125.9	0.3	1.6
Michigan	571.2	336.7	138.0	95.3	1.0	0.2
Ohio	577.3	340.1	137.5	92.7	0.3	6.7
Wisconsin	258.8	111.9	54.8	89.7	2.1	0.3
West North Central	**1,034.2**	**434.9**	**266.2**	**314.3**	**12.7**	**6.1**
Iowa	199.3	74.9	45.0	78.0	1.2	0.2
Kansas	210.8	70.1	45.1	85.9	6.6	3.1
Minnesota	234.8	102.9	53.3	76.7	1.1	0.8
Missouri	242.2	123.6	73.6	40.9	2.5	1.6
Nebraska	103.3	43.4	32.3	26.0	1.3	0.3
North Dakota	20.8	9.4	9.8	1.6	a	a
South Dakota	23.0	10.6	7.1	5.2	a	0.1
South Atlantic	**1,072.0**	**329.6**	**237.2**	**357.0**	**142.8**	**5.4**
Delaware	22.2	7.1	3.6	10.5	1.0	a
District of Columbia	29.8	12.9	16.9	0.0	0.0	0.0
Florida	239.8	13.9	32.9	55.4	134.7	2.9
Georgia	237.3	89.7	51.7	91.0	4.5	0.4
Maryland	122.5	68.6	30.5	22.4	1.0	a
North Carolina	130.4	32.1	26.5	70.7	1.0	0.1
South Carolina	93.2	17.6	15.7	59.4	0.2	0.3
Virginia	124.7	47.3	39.8	35.8	0.2	1.6
West Virginia	72.1	40.4	19.6	11.8	0.2	0.1
East South Central	**523.3**	**172.7**	**109.6**	**206.5**	**23.3**	**11.2**
Alabama	155.3	45.9	26.5	82.1	0.1	0.7
Kentucky	119.7	60.8	27.9	26.0	0.0	5.0
Mississippi	103.3	25.2	12.5	38.2	23.2	4.2
Tennessee	145.0	40.8	42.7	60.2	a	1.3
West South Central	**2,042.1**	**363.3**	**210.1**	**645.5**	**739.4**	**83.8**
Arkansas	111.6	37.5	24.8	43.3	5.8	0.2
Louisiana	207.3	57.5	22.7	75.0	33.9	18.2
Oklahoma	157.7	68.5	35.0	51.7	1.8	0.7
Texas	1,565.5	199.8	127.6	475.5	697.9	64.7
Mountain	**507.4**	**232.5**	**151.2**	**86.5**	**24.3**	**12.9**
Arizona	71.3	25.5	23.5	10.1	10.0	2.2
Colorado	165.0	81.1	58.7	20.0	4.8	0.4
Idaho	20.9	7.8	8.1	5.0	0.0	0.0
Montana	37.3	17.8	11.5	6.2	a	1.8
Nevada	31.7	12.3	11.5	3.4	4.1	0.4
New Mexico	59.8	26.7	13.4	6.7	4.9	8.1
Utah	91.6	49.3	16.2	25.7	0.4	a
Wyoming	29.8	12.0	8.3	9.4	0.1	a
Pacific	**1,601.9**	**544.4**	**247.8**	**353.3**	**454.0**	**2.4**
Alaska	42.3	12.0	12.0	0.0	18.3	0.0
California	1,375.7	480.1	183.7	274.1	435.7	2.1
Hawaii	3.1	.5	1.5	1.1	0.0	0.0
Oregon	63.5	19.5	17.2	26.8	0.0	0.0
Washington	117.3	32.3	33.4	51.3	0.0	0.3

a. Less than 0.05 trillion Btu.
Note: See explanation on page 67 about transportation volumes.

TABLE 6-8
GAS UTILITY INDUSTRY FIRM AND INTERRUPTIBLE GAS SALES BY STATE, 1986

(Trillions of Btu)

Division and State	Commercial			Industrial[a]		
	Total	Firm	Interruptible	Total	Firm	Interruptible
United States	**2,238.4**	**2,103.7**	**134.7**	**2,892.0**	**1,637.9**	**1,254.1**
New England	**90.0**	**81.2**	**8.8**	**49.7**	**26.8**	**22.9**
Connecticut	24.2	17.3	6.9	18.0	9.0	9.0
Maine	1.3	1.3	0.0	0.7	0.6	0.1
Massachusetts	53.6	51.7	1.9	22.0	14.2	7.8
New Hampshire	4.4	4.4	0.0	1.3	0.7	0.6
Rhode Island	5.4	5.4	0.0	5.4	2.2	3.2
Vermont	1.1	1.1	0.0	2.3	0.1	2.2
Middle Atlantic	**321.8**	**298.4**	**23.4**	**271.0**	**169.0**	**102.0**
New Jersey	88.8	79.8	9.0	64.8	28.8	36.0
New York	121.5	115.7	5.8	88.7	55.0	33.7
Pennsylvania	111.5	102.9	8.6	117.5	85.2	32.3
East North Central	**604.5**	**590.6**	**13.9**	**608.2**	**433.6**	**174.6**
Illinois	209.3	207.8	1.5	204.6	158.7	45.9
Indiana	64.9	61.1	3.8	125.9	82.6	43.3
Michigan	138.0	136.9	1.1	95.3	65.4	29.9
Ohio	137.5	136.6	0.9	92.7	83.1	9.6
Wisconsin	54.8	48.2	6.6	89.7	43.8	45.9
West North Central	**266.2**	**240.2**	**26.0**	**314.3**	**112.9**	**201.4**
Iowa	45.0	38.1	6.9	78.0	59.0	19.0
Kansas	45.1	43.0	2.1	85.9	10.6	75.3
Minnesota	53.3	47.5	5.8	76.7	21.0	55.7
Missouri	73.6	68.8	4.8	40.9	10.0	30.9
Nebraska	32.3	29.2	3.1	26.0	11.0	15.0
North Dakota	9.8	7.2	2.6	1.6	a	1.6
South Dakota	7.1	6.4	0.7	5.2	1.3	3.9
South Atlantic	**237.2**	**206.8**	**30.4**	**357.0**	**155.1**	**201.9**
Delaware	3.6	3.6	a	10.5	6.7	3.8
District of Columbia	16.9	11.3	5.6	0.0	0.0	0.0
Florida	32.9	30.0	2.9	55.4	8.2	47.2
Georgia	51.7	51.6	0.1	91.0	14.3	76.7
Maryland	30.5	22.0	8.5	22.4	16.7	5.7
North Carolina	26.5	25.7	0.8	70.7	50.1	20.6
South Carolina	15.7	11.9	3.8	59.4	26.5	32.9
Virginia	39.8	32.3	7.5	35.8	20.9	14.9
West Virginia	19.6	18.4	1.2	11.8	11.7	0.1
East South Central	**109.6**	**102.3**	**7.3**	**206.5**	**137.1**	**69.4**
Alabama	26.5	22.8	3.7	82.1	46.2	35.9
Kentucky	27.9	26.3	1.6	26.0	16.5	9.5
Mississippi	12.5	12.5	a	38.2	35.7	2.5
Tennessee	42.7	40.7	2.0	60.2	38.7	21.5
West South Central	**210.1**	**207.7**	**2.9**	**645.5**	**501.5**	**144.9**
Arkansas	24.8	24.7	0.1	43.3	31.6	11.7
Louisiana	22.7	22.6	0.1	75.0	68.9	6.1
Oklahoma	35.0	33.9	1.1	51.7	18.7	33.0
Texas	127.6	126.0	1.6	475.5	382.3	93.2
Mountain	**151.2**	**150.2**	**1.0**	**86.5**	**65.0**	**21.5**
Arizona	23.5	23.4	0.1	10.1	10.1	a
Colorado	58.7	58.3	0.4	20.0	6.5	13.5
Idaho	8.1	8.1	0.0	5.0	4.5	0.5
Montana	11.5	11.3	0.2	6.2	0.9	5.3
Nevada	11.5	11.5	0.0	3.4	3.4	0.0
New Mexico	13.4	13.1	0.3	6.7	6.6	0.1
Utah	16.2	16.2	0.0	25.7	25.7	0.0
Wyoming	8.3	8.3	a	9.4	7.3	2.1
Pacific	**247.8**	**226.8**	**21.0**	**353.3**	**36.9**	**316.4**
Alaska	12.0	12.0	0.0	0.0	0.0	0.0
California	183.7	173.3	10.4	274.1	12.4	261.7
Hawaii	1.5	1.2	0.3	1.1	1.1	0.0
Oregon	17.2	16.6	0.6	26.8	8.7	18.1
Washington	33.4	23.7	9.7	51.3	14.7	36.6

a. Does not include electric generation. See Table 6-13.
b. Less than 0.05 trillion Btu.

TABLE 6-9
GAS UTILITY INDUSTRY SALES
BY TYPE OF INDUSTRY CLASSIFICATION, 1960-1986

(Trillions of Btu)

Industry Classification	1960	1965	1970	1975	1980	1985	1986
Agriculture, forestry and fisheries	10.8	12.0	33.0	49.7	47.1	46.5	36.1
Petroleum and natural gas production	48.3	97.8	101.0	83.8	32.2	45.6	28.5
Other mining	44.8	69.8	59.8	49.3	55.6	27.7	19.8
Electric services[a]	1,420.4	1,734.2	2,588.6	1,685.2	2,520.5	2,327.1	1,770.6
Other transportation, communications, and public utilities	22.4	38.5	96.2	95.9	92.5	94.3	74.0
Hotels, rooming houses, camps	16.2	33.5	67.3	77.8	27.8	34.3	36.6
Laundries, cleaning and dyeing	4.0	16.3	21.5	24.3	22.0	28.5	30.0
Other services	34.2	70.1	175.1	236.7	309.5	372.5	350.2
Other non-manufacturing	43.1	74.9	198.6	187.5	151.8	288.7	305.1
Ordnance	14.1	21.2	35.4	b	b	b	b
Food and kindred products	167.8	243.0	330.5	338.9	320.2	252.5	195.6
Textile products, apparel, fabrics, etc.	22.6	43.7	72.5	54.6	64.3	57.4	57.9
Furniture, lumber, and other wood products	23.1	52.3	64.9	61.1	45.7	36.7	28.0
Paper and allied products	193.2	267.5	402.7	267.6	257.8	187.6	133.2
Carbon black	15.0	42.0	52.8	38.2	34.1	2.2	1.5
Chemicals and allied products (except carbon black)	519.6	644.6	880.7	886.5	603.8	35.6	354.7
Petroleum refining	384.1	375.1	639.6	514.5	372.0	118.3	62.5
Rubber and miscellaneous plastic products	16.8	38.9	47.8	45.1	50.7	42.2	31.9
Glass products	138.4	184.8	208.8	173.7	170.9	93.7	76.5
Cement	169.6	183.5	195.0	158.1	49.2	8.3	5.7
Clay products, pottery, etc.	129.6	153.7	145.3	110.0	86.4	58.0	47.5
Other stone products and miscellaneous	30.8	68.3	82.3	97.0	85.5	48.9	41.1
Primary iron and steel industries	346.1	552.4	669.0	555.5	546.3	265.9	171.5
Primary non-ferrous industries	208.1	270.8	232.9	275.9	194.4	124.5	83.5
Fabricated metal products, machinery equipment and supplies	110.7	181.6	289.8	276.8	233.1	195.7	169.6
Transportation equipment	65.1	112.0	170.8	140.2	84.4	82.9	62.7
Other manufacturing	33.9	63.3	100.0	122.1	121.0	141.0	147.4
Public administration	c	c	c	72.1	70.0	91.9	87.9
Unclassified[d]	1,181.1	1,236.9	1,434.9	3,495.4	4,354.9	2,858.4	2,652.0
Total Gas Utility Industry Commercial, Industrial and "Other" sales[a,e]	**5,413.9**	**6,882.7**	**9,396.8**	**10,173.5**	**11,003.7**	**8,466.9**	**7,061.7**
Total Commercial, Industrial and "Other" sales of co.'s reporting this table	**4,512.7**	**6,050.0**	**8,022.9**	**8,786.0**	**7,851.5**	**5,926.7**	**4,783.4**
Transfers[a]	**234.1**	**246.2**	**283.6**	**301.6**	**416.7**	**364.5**	**315.3**

a. Includes the quantities of gas for electric generation detailed as "Transfers" which are not included in Total Commercial, Industrial, and "Other" sales of companies reporting this table or in Total Gas Utility Industry sales. Such quantities represent transfers by the gas department to the electric department of combination gas and electric companies.
b. Classification eliminated.
c. New classification in 1972.
d. Difference between total and classified volumes.
e. Includes Industrial and "Other" sales only prior to 1971.
Note: Prior to 1982 only large volume sales detailed by SIC.

GAS FACTS

TABLE 6-11
GAS CONSUMED FOR ELECTRIC GENERATION,[a] BY STATE, 1960-1986

(Millions of Cubic Feet)

Division and State	1960	1965	1970	1975	1980	1985[R]	1986
United States	**1,724,762**	**2,321,101**	**3,931,860**	**3,146,874**	**3,681,595**	**3,044,083**	**2,600,175**
New England	**12,885**	**13,918**	**8,133**	**2,523**	**7,001**	**49,346**	**18,618**
Connecticut	1,756	337	147	344	0	1,559	740
Maine	0	0	0	0	0	0	0
Massachusetts	10,785	13,098	5,668	1,437	5,083	45,161	14,875
New Hampshire	0	0	0	177	0	67	0
Rhode Island	344	483	2,319	11	1,679	2,532	0
Vermont	0	0	0	555	239	95	3
Middle Atlantic	**89,288**	**97,850**	**161,385**	**23,436**	**206,769**	**235,563**	**171,099**
New Jersey	25,482	22,440	45,891	8,601	79,513	61,362	36,877
New York	57,819	74,189	106,141	13,613	124,391	172,631	133,532
Pennsylvania	5,987	1,221	9,354	1,213	2,865	1,570	690
East North Central	**61,407**	**68,232**	**278,143**	**118,394**	**65,883**	**19,141**	**20,303**
Illinois	42,348	34,618	132,382	34,176	19,165	5,881	6,067
Indiana	8,790	13,272	29,507	10,994	1,904	1,117	1,086
Michigan	5,209	2,989	64,270	47,151	26,368	10,126	10,765
Ohio	2,992	2,947	21,380	6,139	4,706	699	606
Wisconsin	2,068	14,406	30,604	19,935	13,740	1,317	1,779
West North Central	**245,084**	**303,818**	**420,086**	**264,825**	**143,387**	**27,333**	**21,101**
Iowa	48,587	52,238	77,910	46,929	6,835	2,100	1,366
Kansas	82,195	112,955	167,885	127,818	101,022	21,181	15,032
Minnesota	48,521	51,420	58,954	22,709	8,077	1,275	1,766
Missouri	30,251	47,552	62,970	26,320	15,329	1,466	1,181
Nebraska	30,973	36,269	47,641	37,659	11,850	1,284	1,713
North Dakota	103	25	362	157	15	2	2
South Dakota	4,454	3,359	4,364	3,232	259	26	41
South Atlantic	**147,439**	**117,395**	**343,408**	**199,103**	**191,409**	**177,934**	**183,219**
Delaware	3,190	4,611	3,744	1,697	6,999	7,266	1,796
District of Columbia	0	0	0	0	0	0	0
Florida	88,518	87,001	198,367	141,153	166,047	165,683	169,758
Georgia	25,336	831	58,674	40,282	3,666	885	5,803
Maryland	78	56	11,435	451	5,230	1,372	2,194
North Carolina	4,660	2,895	21,126	101	1,702	595	1,137
South Carolina	23,278	18,801	45,081	14,566	5,418	483	1,386
Virginia	1,438	2,268	4,276	496	2,285	1,528	847
West Virginia	941	932	705	358	62	122	298
East South Central	**53,249**	**78,626**	**140,940**	**37,774**	**99,461**	**55,779**	**47,917**
Alabama	9,378	5,561	15,444	5,994	1,382	1,078	1,054
Kentucky	2,288	453	8,533	272	1,902	1,121	437
Mississippi	34,358	56,360	99,710	31,507	95,073	53,579	46,426
Tennessee	7,225	16,252	17,253	0	1,104	0	0
West South Central	**656,727**	**1,009,857**	**1,735,541**	**2,042,085**	**2,243,820**	**1,694,726**	**1,599,274**
Arkansas	46,779	67,510	107,445	31,818	58,863	11,411	28,425
Louisiana	119,818	175,573	331,750	356,130	424,991	285,039	266,783
Oklahoma	82,820	127,231	234,721	300,848	329,940	200,686	197,239
Texas	407,310	639,543	1,061,625	1,353,290	1,430,026	1,197,590	1,106,826
Mountain	**134,990**	**136,442**	**198,745**	**164,636**	**175,032**	**83,716**	**62,810**
Arizona	53,246	36,740	58,898	17,693	49,699	41,731	30,607
Colorado	37,015	35,539	51,194	52,930	31,928	4,913	4,650
Idaho	0	0	0	18	46	24	5
Montana	341	1,992	2,529	1,059	4,182	468	407
Nevada	6,339	13,271	25,336	25,152	27,541	8,080	6,592
New Mexico	33,701	43,996	54,894	64,239	56,280	28,133	20,182
Utah	3,677	4,742	3,520	2,725	5,133	235	230
Wyoming	671	163	2,373	819	222	132	138
Pacific	**323,693**	**494,963**	**645,478**	**294,105**	**548,833**	**700,545**	**478,835**
Alaska	0	2,149	8,198	19,619	28,763	34,194	34,409
California	322,992	492,701	636,270	274,483	518,808	666,274	444,303
Hawaii	0	0	0	0	0	0	0
Oregon	701	113	1,010	3	321	0	0
Washington	0	0	0	0	941	77	124

a. Includes direct sales by producers to electric utilities as well as sales by the gas utility industry.
R–Revised.
Source: U.S. Department of Energy, Energy Information Administration, *Electric Power Monthly*, December 1986.

TABLE 6-12
GAS UTILITY INDUSTRY GAS USED FOR ELECTRIC GENERATION, 1960-1986[a]

(Trillions of Btu)

Year	Sales				Transfers[c]	Total Sales and Transfers
	Industrial[b]		Other	Total Sales		
	Firm	Interruptible				
1960		999.3	187.1	1,186.4	234.1	1,420.4
1961		990.6	218.6	1,209.2	244.0	1,453.2
1962		1,040.7	259.0	1,299.7	239.1	1,538.8
1963		1,103.2	306.6	1,409.7	247.1	1,656.8
1964		1,258.3	347.0	1,605.3	265.4	1,870.7
1965		1,179.5	308.5	1,488.0	246.2	1,734.2
1966		1,276.2	367.8	1,644.0	260.2	1,904.2
1967		1,386.9	316.7	1,703.6	254.3	1,957.9
1968		1,489.6	381.3	1,870.9	270.9	2,141.8
1969		1,643.9	360.8	2,004.7	232.6	2,237.3
1970		1,877.5	427.5	2,305.0	283.6	2,588.6
1971	853.6	1,083.6	483.4	2,420.6	595.2	3,015.9
1972	956.5	858.4	553.3	2,368.4	549.5	2,917.9
1973	542.8	871.6	511.4	1,925.8	477.2	2,403.0
1974	497.2	812.5	387.9	1,697.6	419.8	2,117.4
1975	374.5	623.4	385.8	1,383.6	301.6	1,685.2
1976	478.1	889.5	d	1,367.6	250.9	1,618.5
1977	489.1	959.6	d	1,448.7	241.1	1,689.8
1978	544.2	854.0	d	1,398.2	187.9	1,586.1
1979	665.2	980.0	d	1,645.2	335.0	1,980.2
1980	974.0	1,129.8	d	2,103.8	416.7	2,520.5
1981	996.6	1,259.3	d	2,255.9	344.0	2,599.8
1982	775.8	1,157.6	d	1,933.4	367.9	2,301.3
1983	632.2	973.3	d	1,605.5	368.3	1,973.8
1984	670.5	1,079.5	d	1,750.0	405.8	2,155.8
1985	835.4	1,113.3	d	1,948.7	364.5	2,313.2
1986	681.0	767.7	d	1,448.7	315.3	1,764.0

a. Excludes direct sales by producers to electric utilities.
b. No breakdown available prior to 1971.
c. Represents transfers by the gas department to the electric department of combination gas and electric companies.
d. Other now included with Industrial to conform to the definition of industrial services.

TABLE 6-13
GAS UTILITY INDUSTRY GAS USED FOR ELECTRIC GENERATION, BY STATE, 1986[a]

(Trillions of Btu)

Division of State	Industrial Sales			Transfers[b]	Total Sales and Transfers
	Firm	Interruptible	Total		
United States	**681.0**	**767.7**	**1,448.7**	**315.3**	**1,764.0**
New England	**0.1**	**15.9**	**16.0**	**0.7**	**16.7**
Connecticut	0.0	c	c	0.7	0.7
Maine	0.0	0.0	0.0	0.0	0.0
Massachusetts	0.1	15.3	15.4	0.0	15.4
New Hampshire	0.0	0.0	0.0	0.0	0.0
Rhode Island	0.0	0.6	0.6	0.0	0.6
Vermont	0.0	0.0	0.0	0.0	0.0
Middle Atlantic	**0.8**	**25.4**	**26.2**	**138.4**	**164.6**
New Jersey	0.4	12.6	13.0	24.8	37.8
New York	0.3	12.7	13.0	113.6	126.6
Pennsylvania	0.1	0.1	0.2	0.0	0.2
East North Central	**6.0**	**4.0**	**10.0**	**0.9**	**10.9**
Illinois	5.0	1.4	6.3	c	6.3
Indiana	0.2	0.0	0.3	0.9	1.2
Michigan	0.5	0.5	1.0	0.0	1.0
Ohio	0.2	0.1	0.3	0.0	0.3
Wisconsin	0.1	2.0	2.1	0.0	2.1
West North Central	**1.9**	**10.7**	**12.6**	**2.3**	**14.9**
Iowa	0.4	0.8	1.2	0.3	1.5
Kansas	0.6	6.0	6.6	0.7	7.3
Minnesota	0.1	1.0	1.1	1.0	2.1
Missouri	c	2.5	2.5	0.3	2.8
Nebraska	0.8	0.4	1.2	0.0	1.2
North Dakota	0.0	c	c	0.0	c
South Dakota	0.0	c	c	0.0	c
South Atlantic	**1.6**	**141.2**	**142.8**	**3.5**	**146.3**
Delaware	1.0	0.0	1.0	1.0	2.0
District of Columbia	0.0	0.0	0.0	0.0	0.0
Florida	0.5	134.2	134.7	0.0	134.7
Georgia	0.0	4.5	4.5	0.0	4.5
Maryland	0.1	0.9	1.0	1.4	2.4
North Carolina	0.0	1.0	1.0	0.0	1.0
South Carolina	0.0	0.2	0.2	1.1	1.3
Virginia	0.0	0.2	0.2	0.0	0.2
West Virginia	0.0	0.2	0.2	0.0	0.2
East South Central	**22.5**	**0.8**	**23.3**	**c**	**23.3**
Alabama	c	0.1	0.1	0.0	0.1
Kentucky	0.0	0.0	0.0	c	c
Mississippi	22.5	0.7	23.2	0.0	23.2
Tennessee	0.0	c	c	0.0	c
West South Central	**615.0**	**124.5**	**739.5**	**167.5**	**907.0**
Arkansas	5.8	c	5.8	0.0	5.8
Louisiana	29.5	4.4	33.9	25.7	59.6
Oklahoma	0.4	1.5	1.9	73.1	75.0
Texas	579.3	118.6	697.9	68.7	766.6
Mountain	**22.1**	**2.2**	**24.3**	**2.0**	**26.3**
Arizona	9.9	0.1	10.0	0.0	10.0
Colorado	2.7	2.1	4.8	0.1	4.8
Idaho	0.0	0.0	0.0	0.0	0.0
Montana	0.0	c	c	0.4	0.4
Nevada	4.1	0.0	4.1	1.5	5.6
New Mexico	4.9	0.0	4.9	0.0	4.9
Utah	0.4	0.0	0.4	0.0	0.4
Wyoming	0.1	0.0	0.1	0.0	0.1
Pacific	**11.0**	**443.0**	**454.0**	**0.0**	**454.0**
Alaska	0.0	18.4	18.4	0.0	18.4
California	11.0	424.6	435.7	0.0	435.7
Hawaii	0.0	0.0	0.0	0.0	0.0
Oregon	0.0	0.0	0.0	0.0	0.0
Washington	0.0	0.0	0.0	0.0	0.0

a. Excludes direct sales by producers to electric utilities.
b. Volumes transferred by the gas department to the electric department of combination gas and electric companies.
c. Less than 0.05 trillion Btu.

TABLE 6-14
TOTAL LIQUEFIED PETROLEUM GAS SALES BY CONSUMING SECTOR
1960-1985[a]

(Trillions of Btu)

Year	Total	Sector			
		Residential	Commercial	Industrial	Transportation
1960	911.7	342.9	60.5	489.1	19.1
1961	938.2	350.5	61.9	506.8	19.0
1962	1,024.7	382.6	67.5	554.3	20.3
1963	1,107.9	410.2	72.4	604.0	21.3
1964	1,183.6	420.6	74.2	663.6	25.3
1965	1,231.8	434.0	76.6	697.0	24.3
1966	1,299.3	461.2	81.4	734.0	22.7
1967	1,322.0	483.3	85.3	732.9	20.5
1968	1,472.8	519.1	91.6	839.9	22.1
1969	1,695.6	589.6	104.1	975.9	26.1
1970	1,688.5	578.9	102.2	981.1	26.4
1971	1,722.9	585.4	103.3	1,003.8	30.3
1972	1,954.6	628.0	110.8	1,179.1	36.7
1973	1,980.7	594.8	105.0	1,242.0	39.0
1974	1,913.8	545.9	96.3	1,230.7	40.9
1975	1,807.1	527.8	93.1	1,148.8	37.4
1976	1,907.3	549.2	96.9	1,223.1	38.0
1977	1,907.9	533.5	94.1	1,243.8	36.5
1978	1,891.9	516.4	91.1	1,255.2	29.2
1979	2,138.1	354.8	62.6	1,707.8	12.9
1980	1,976.0	325.1	57.4	1,576.1	17.4
1981	1,948.9	310.9	54.9	1,561.4	21.7
1982	1,978.4	296.1	52.3	1,601.2	28.9
1983	1,990.2	352.4	62.2	1,538.2	37.4
1984	2,071.2	379.0	66.9	1,576.4	49.0
1985	2,102.8	422.5	74.6	1,554.5	51.2

a. Liquefied petroleum gases include ethane, ethylene, propane, propylene, butane, butylene, butane-propane mixture, ethane-propane mixture, and isobutane. The 1979-1985 LPG data may not be directly comparable to the pre-1979 data due to modifications to the LPG sales survey form and an updated sampling frame.

Source: U.S. Department of Energy, Energy Information Administration, *State Energy Data Reports.*

SECTION 7
REVENUES

	1986	% Change 86/85
Gas Utility Industry		
(Thousands)		
Total Revenues (From sales)	$51,194,197	−19.1
Residential	24,750,086	− 7.9
Commercial	11,267,985	−11.4
Industrial	14,503,165	−37.2
Industrial Only	10,554,154	−32.6
Electric Generation	3,949,011	−46.8
Other	672,961	+ 8.5
Resale	$27,243,450	−31.5

TABLE 6-10
GAS UTILITY INDUSTRY SALES, BY TYPE OF INDUSTRY CLASSIFICATION AND BY DIVISION, 1986

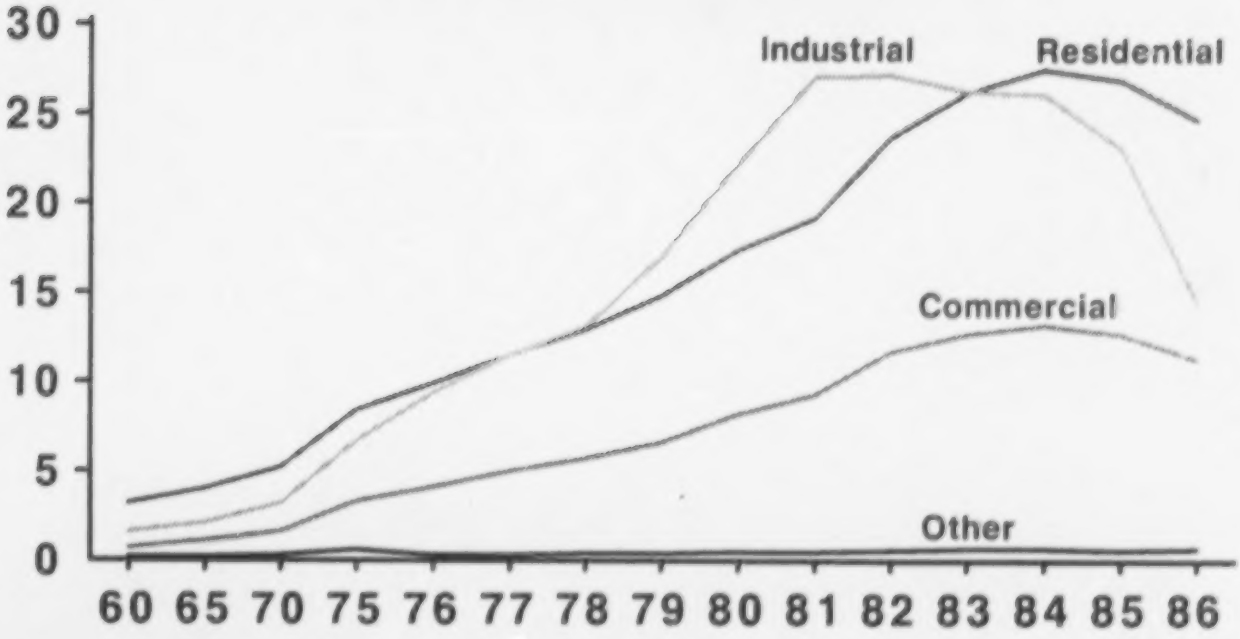
(Trillions of Btu)

Industry Classification	Total U.S.	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Agriculture, forestry and fisheries	36.1	0.2	0.8	8.4	4.[illegible]	0.2	1.1	10.1	1.3	10.1
Petroleum and natural gas production	28.5	0.0	0.0	0.1	12.2	0.0	1.2	0.6	0.8	13.6
Other mining	19.8	0.0	0.3	2.4	0.4	4.1	0.1	9.1	0.9	2.6
Electric services[b]	1,770.6	16.7	164.7	11.8	15.0	146.6	23.3	906.9	26.3	459.3
Other transportation, communication, and public utilities	74.0	3.3	13.5	18.0	10.2	0.7	4.9	1.2	2.1	20.1
Hotels, rooming houses, and camps	36.6	1.1	4.8	11.1	2.7	2.4	1.1	0.5	2.2	10.7
Laundries, cleaning and dyeing	30.0	1.0	2.2	10.0	0.8	1.0	1.7	0.3	1.1	12.0
Other services	350.2	10.1	36.4	164.4	28.6	12.2	11.3	4.8	12.5	69.9
Other non-manufacturing	305.1	19.5	39.1	131.3	20.3	20.4	9.8	1.0	9.5	54.2
Food and kindred products	195.6	1.3	19.7	54.5	44.3	14.1	7.5	4.6	2.4	47.2
Textile products, apparel, fabrics, etc.	57.9	2.2	3.5	3.4	0.2	40.0	3.7	0.1	0.1	4.7
Furniture, lumber, and other wood products	28.0	0.4	2.2	6.9	1.0	2.5	2.4	0.3	0.3	12.1
Paper and Allied Products	133.2	1.5	17.7	31.0	4.2	19.0	15.1	5.7	5.0	33.9
Carbon black	1.5	0.0	0.0	0.1	0.0	0.3	0.7	0.2	0.0	0.3
Chemicals and allied products (except carbon black)	354.7	2.4	17.8	52.0	29.2	46.8	20.0	162.6	1.8	22.1
Petroleum refining	62.5	0.0	1.7	6.8	1.7	6.2	0.5	0.2	0.4	44.9
Rubber and miscellaneous plastic products	31.9	0.9	2.9	14.3	1.4	5.8	2.9	0.1	0.0	3.6
Glass products	76.5	1.6	21.4	14.6	1.6	10.6	8.8	0.7	0.0	17.1
Cement	5.7	0.0	0.2	0.6	0.1	0.3	1.0	0.2	0.4	2.8
Clay products, pottery, etc.	47.5	0.5	3.1	3.7	7.9	22.5	3.8	0.8	0.4	5.0
Other stone products and miscellaneous	41.1	1.6	6.3	6.7	3.4	6.3	2.7	1.0	1.0	12.1
Primary iron and steel industries	171.5	2.4	27.9	103.6	6.6	6.4	16.2	0.1	0.0	8.4
Primary non-ferrous industries	83.5	1.5	5.6	31.3	7.0	4.6	8.5	7.0	3.5	14.4
Fabricated metal products, machinery equipment and supplies	169.6	5.3	18.0	87.8	15.2	8.4	8.9	4.4	1.1	20.4
Transportation equipment	62.7	1.8	4.3	29.7	7.7	5.2	2.7	1.3	0.3	9.6
Other manufacturing	147.4	2.8	14.6	31.1	7.2	9.4	7.3	60.1	1.7	13.2
Public administration	87.9	1.8	13.3	18.8	7.5	10.7	5.9	6.7	5.3	18.0
Unclassified	2,652.0	79.0	349.2	378.2	361.2	339.2	177.7	655.8	196.5	115.1
Total Gas Utility Industry Commercial, Industrial and "Other" sales[b]	**7,061.7**	**158.9**	**791.3**	**1,232.7**	**601.6**	**746.0**	**350.7**	**1,846.3**	**276.8**	**1,057.5**
Total Commercial, Industrial and "Other" sales of co.'s reporting this table	**4,783.4**	**100.9**	**564.3**	**1,020.3**	**365.3**	**526.4**	**201.2**	**892.9**	**149.1**	**962.8**
Transfers[b]	**315.3**	**0.7**	**138.4**	**1.0**	**2.3**	**3.5**	**0.0**	**167.5**	**1.9**	**0.0**

a. Less than 0.05 trillion Btu.
b. Includes the quantities for electric generation detailed as "Transfers" which are not included in Total Commercial, Industrial and "Other" sales of companies reporting this table or in Total Gas Utility Industry sales. Such quantities represent transfers by the gas department to the electric department of combination gas and electric companies.

CHART 7-1

GAS UTILITY INDUSTRY REVENUES BY CLASS OF SERVICE (BILLIONS OF DOLLARS)



REFERENCE: TABLE 7-1

REVENUES

TABLE 7-1
GAS UTILITY INDUSTRY REVENUES, BY CLASS OF SERVICE, 1960-1986[a]

(Thousands)

Year	Total	Residential	Commercial	Industrial[b]	Other[b]
1960	$ 5,617,387	$ 3,177,430	$ 723,448	$ 1,563,285	$153,224
1961	5,992,879	3,376,781	789,202	1,658,276	168,620
1962	6,444,860	3,603,266	874,366	1,795,894	171,334
1963	6,726,815	3,727,868	910,497	1,905,733	182,717
1964	7,132,685	3,894,870	998,386	2,048,527	190,902
1965	7,406,978	4,029,562	1,053,647	2,147,958	175,811
1966	7,869,888	4,195,331	1,135,352	2,334,654	204,551
1967	8,260,739	4,382,837	1,223,897	2,460,885	193,120
1968	8,781,152	4,567,307	1,315,409	2,675,261	223,175
1969	9,479,566	4,883,029	1,459,054	2,918,973	218,510
1970	10,282,611	5,207,335	1,620,446	3,181,206	273,624
1971	11,357,392	5,635,395	1,829,309	3,568,582	324,106
1972	12,465,235	6,094,171	2,063,803	3,943,011	364,250
1973	12,987,272	6,246,988	2,172,460	4,196,714	371,110
1974	15,242,481	6,899,395	2,539,300	5,391,139	412,647
1975	19,101,498	8,445,484	3,302,669	6,745,171	608,174
1976	23,701,211	9,941,013	4,075,009	9,434,751	250,438
1977	28,303,200	11,540,805	4,979,890	11,454,675	327,830
1978	32,149,921	12,938,865	5,695,666	13,138,576	376,814
1979	38,947,143	14,832,950	6,623,766	17,044,820	445,607
1980	48,303,034	17,432,095	8,183,160	22,215,221	472,558
1981	56,109,780	19,180,238	9,285,550	27,123,862	520,136
1982	63,199,775	23,699,899	11,666,099	27,200,015	633,762
1983	65,856,669	26,173,122	12,658,718	26,314,873	689,956
1984	67,496,298	27,484,877	13,205,106	26,093,776	712,539
1985[R]	63,292,552	26,864,099	12,722,134	23,085,833	620,486
1986	51,194,197	24,750,086	11,267,985	14,503,165	672,961

a. Excludes data for Alaska prior to 1961.
b. Prior to 1976 "Other" electric generation (refer to Table 7-10) is included in the "Other" class of service. For 1976 and beyond all electric generation is included in the Industrial category.
R-Revised.

TABLE 7-2
GAS UTILITY INDUSTRY REVENUES, BY QUARTER AND CLASS OF SERVICE
1960-1986

(Thousands)

Year and Quarter	Total	Residential	Commercial	Industrial[a]	Other[a]
1960					
First	$ 2,033,980	$ 1,304,810	$ 297,337	$ 385,053	$ 46,780
Second	1,278,858	701,603	153,028	389,985	34,242
Third	860.134	358,237	83,575	388,519	29,803
Fourth	1,431,263	803,400	186,039	399,440	42,384
1965					
First	2,688,389	1,667,580	438,864	528,598	53,347
Second	1,713,833	909,991	230,269	535,235	38,338
Third	1,151,283	461,313	121,320	531,538	37,112
Fourth	1,847,096	986,096	261,769	552,222	47,009
1970					
First	3,742,316	2,197.999	687,117	780,927	76,273
Second	2,342,672	1,136,333	346,748	797,906	61,685
Third	1,624,621	578,747	182,163	803,503	60,208
Fourth	2,573,002	1,294,256	404,418	798,870	75,458
1975					
First	6.192,706	3,303,345	1,241,301	1,507,088	140,972
Second	4,449,583	1,972,484	734,977	1,625,673	116,449
Third	3,396,905	987,079	438,873	1,783,838	187,115
Fourth	5,062,304	2,182,576	887,518	1,828,572	163,638
1980					
First	16,402.661	7,290,269	3,245,916	5,690,750	175,726
Second	10,062,858	3,365,770	1,567,485	5,041,319	88,284
Third	8,570,836	1,776,745	1,036,752	5,685,694	71,645
Fourth	13,266,679	4,999,311	2,333,007	5,797,458	136,903
1981					
First	18,801,514	8,306,948	3,745,526	6,558,879	190,161
Second	12,100,242	3,431,510	1,700,873	6,864,699	103,160
Third	10,093,853	1,953,491	1,174,408	6,886,411	79,543
Fourth	15,114,177	5,488,289	2,664,743	6,813,873	147,272
1982					
First	22,716,502	10,471,317	4,812,798	7,199,859	232,528
Second	13,208,177	4,427,895	2,205,520	6,459,704	115,058
Third	10,788,316	2,372,937	1,455,682	6,868,834	90,863
Fourth	16,486,780	6,427,750	3,192,099	6,671,618	195,313
1983					
First	23,039,000	10,804,224	5,020,783	6,950,292	263,701
Second	14,587,145	5,598,036	2,665,010	6,176,141	147,958
Third	10,920,330	2,597,847	1,544,337	6,682,247	95,899
Fourth	17,290,194	7,173,015	3,428,588	6,506,193	182,398
1984					
First	25,546,562	12,465,689	5,734,074	7,050,372	296,427
Second	14,279,409	5,321,699	2,579,755	6,245,386	132,569
Third	10,848,608	2,687,920	1,553,057	6,523,808	83,823
Fourth	16,821,719	7,009,569	3,338,220	6,274,210	199,720
1985[R]					
First	24,901,945	12,459,204	5,675,345	6,517,019	268,377
Second	12,186,443	4,597,373	2,221,153	5,255,653	112,264
Third	9,790,920	2,658,158	1,468,241	5,591,635	72,886
Fourth	16,413,244	7,149,364	3,375,395	5,721,526	166,959
1986					
First	21,117,999	11,127,373	5,032,437	4,721,433	236,756
Second	9,994,374	4,427,106	2,000,594	3,408,887	157,787
Third	7,060,142	2,549,509	1,273,565	3,134,522	102,546
Fourth	13,021,682	6,646,098	2,961,389	3,238,323	175,872

a. Prior to 1976 "Other" electric generation (see Table 7-9) is included in the "Other" class of service. For 1976 and beyond all electric generation is included in the Industrial category.

R–Revised.

TABLE 7-3
GAS UTILITY INDUSTRY REVENUES, BY STATE
1960-1986[a]

(Thousands)

Division and State	1960	1965	1970	1975	1980	1985[R]	1986
United States	**$5,617,387**	**$7,406,978**	**$10,282,611**	**$19,101,498**	**$48,303,034**	**$63,292,552**	**$51,194,197**
New England	**212,719**	**274,937**	**377,666**	**700,071**	**1,479,111**	**2,289,149**	**2,053,700**
Connecticut	52,198	66,653	98,178	178,480	366,348	572,431	550,531
Maine	3,608	3,845	4,013	5,983	11,155	19,318	17,945
Massachusetts	131,588	171,040	228,224	425,411	905,414	1,388,928	1,200,111
New Hampshire	5,126	7,336	10,328	17,190	40,569	71,173	68,331
Rhode Island	18,803	24,599	34,360	65,982	132,190	207,349	189,819
Vermont	1,396	1,464	2,563	7,025	23,435	29,950	26,963
Middle Atlantic	**1,068,271**	**1,342,428**	**1,753,799**	**2,940,846**	**6,603,468**	**9,466,383**	**8,628,278**
New Jersey	192,315	268,622	372,672	594,560	1,408,766	2,144,776	1,997,747
New York	462,574	570,984	720,609	1,248,149	2,663,655	4,198,569	3,833,287
Pennsylvania	413,382	502,822	660,518	1,098,137	2,531,047	[illegible]	2,797,244
East North Central	**1,394,218**	**1,995,933**	**2,883,886**	**5,033,327**	**11,594,314**	**[illegible]**	**12,864,253**
Illinois	393,707	555,763	829,369	1,504,405	3,588,071	4,5[illegible]146	3,954,573
Indiana	135,593	218,436	356,270	530,454	1,341,428	1,881,958	1,571,647
Michigan	290,178	434,292	651,318	1,269,106	2,602,792	3,779,438	2,965,390
Ohio	483,987	625,011	789,008	1,254,154	2,875,396	3,413,729	3,032,971
Wisconsin	90,753	162,431	262,921	475,208	1,176,627	1,633,595	1,339,672
West North Central	**540,961**	**701,789**	**982,976**	**1,585,864**	**3,778,158**	**5,272,430**	**4,356,593**
Iowa	96,062	127,197	180,607	311,364	718,370	998,934	836,090
Kansas	100,563	125,238	178,128	282,119	815,547	937,324	726,500
Minnesota	113,648	156,680	218,398	352,170	750,995	1,277,197	1,068,779
Missouri	144,596	187,021	267,726	406,752	992,492	1,277,040	1,103,744
Nebraska	66,334	77,722	101,542	169,010	356,352	536,737	414,124
North Dakota	5,712	10,566	15,540	31,037	77,168	119,167	102,503
South Dakota	14,046	17,365	21,035	33,412	67,234	126,031	104,853
South Atlantic	**476,032**	**631,577**	**941,975**	**1,538,752**	**4,112,603**	**5,787,396**	**5,095,965**
Delaware	10,102	15,881	22,672	33,229	78,336	124,740	115,218
District of Columbia	26,868	29,602	34,635	54,671	120,837	205,515	203,788
Florida	47,537	73,357	120,609	146,526	611,114	910,783	701,026
Georgia	104,603	127,728	191,637	349,550	950,915	1,436,103	1,221,603
Maryland	87,037	113,321	163,999	272,830	598,324	780,472	755,235
North Carolina	30,669	54,773	106,051	165,659	495,459	670,080	608,360
South Carolina	23,344	42,736	74,858	130,662	354,351	480,164	421,647
Virginia	67,569	89,235	126,840	206,109	482,080	736,868	669,034
West Virginia	78,303	84,944	100,674	179,516	421,187	442,671	400,054
East South Central	**312,695**	**365,717**	**509,350**	**775,705**	**2,306,091**	**2,846,738**	**2,293,208**
Alabama	93,652	113,647	149,962	237,710	698,762	860,907	718,839
Kentucky	80,075	91,310	127,787	199,738	509,455	694,725	545,376
Mississippi	60,254	68,331	100,383	134,730	517,786	554,370	413,804
Tennessee	78,714	92,429	131,218	203,527	580,088	736,736	615,189
West South Central	**642,063**	**771,223**	**1,066,433**	**2,953,148**	**8,951,915**	**9,062,862**	**6,864,686**
Arkansas	58,303	83,252	125,928	175,862	408,334	559,821	410,797
Louisiana	141,741	165,926	219,303	386,609	1,215,482	1,118,878	780,850
Oklahoma	88,272	103,263	127,367	328,817	965,728	982,583	621,142
Texas	353,747	418,782	593,835	2,061,860	6,362,371	6,401,580	5,051,897
Mountain	**246,824**	**325,757**	**456,593**	**920,668**	**2,393,490**	**3,050,419**	**2,269,551**
Arizona	52,255	65,722	95,423	171,773	384,777	573,729	338,220
Colorado	69,462	88,404	120,563	241,901	713,628	907,835	759,053
Idaho	11,555	19,776	28,990	75,818	182,600	171,432	106,651
Montana	22,159	32,003	42,871	82,021	163,917	204,292	155,632
Nevada	8,786	17,544	32,383	79,858	196,982	226,256	158,474
New Mexico	38,804	43,638	56,975	125,617	333,855	351,053	267,326
Utah	32,269	43,572	55,273	101,164	284,725	453,012	359,651
Wyoming	11,534	15,098	24,115	42,516	133,006	162,810	124,544
Pacific	**723,604**	**997,617**	**1,304,933**	**2,653,117**	**7,093,884**	**10,262,389**	**6,767,963**
Alaska	b	4,575	11,678	24,829	38,725	95,581	106,977
California	653,350	875,876	1,117,573	2,193,048	6,076,193	8,969,857	5,750,067
Hawaii	5,003	6,053	7,714	24,125	45,162	44,305	37,465
Oregon	24,806	42,169	65,096	156,703	354,502	432,989	321,391
Washington	40,445	68,944	102,872	254,412	579,302	719,657	552,063

a. Excludes revenues from sales for resale.
b. Not available.
R-Revised.

TABLE 7-4
GAS UTILITY INDUSTRY REVENUES FROM GAS FOR RESALE, BY STATE, 1960-1986[a]

(Thousands)

Division and State	1960	1965	1970	1975	1980	1985	1986
United States	**$3,165,820**	**$4,255,066**	**$6,217,662**	**$11,573,752**	**$37,910,013**	**$39,772,658**	**$27,243,450**
New England	**82,195**	**110,807**	**168,196**	**382,550**	**851,449**	**1,196,319**	**920,749**
Connecticut			51,891	125,226	222,022	276,241	221,372
Maine			0	0	0	0	0
Massachusetts			94,590	216,069	529,965	770,323	576,374
New Hampshire			5,319	5,744	17,577	33,292	26,566
Rhode Island			16,396	34,645	81,885	116,463	96,437
Vermont			0	866	0	0	0
Middle Atlantic	**575,739**	**777,878**	**1,057,060**	**1,761,307**	**5,815,523**	**6,604,685**	**4,765,072**
New Jersey			215,211	365,302	1,250,773	1,500,354	1,151,209
New York			371,895	532,961	1,829,091	2,273,815	1,531,036
Pennsylvania			469,951	863,044	2,735,659	2,830,516	2,082,827
East North Central	**699,808**	**1,151,990**	**1,940,570**	**3,596,246**	**10,687,835**	**11,510,873**	**8,192,807**
Illinois			529,299	1,041,633	3,412,478	4,020,673	2,797,463
Indiana			188,301	292,665	988,871	1,310,034	1,234,469
Michigan			278,232	659,019	1,804,423	1,471,009	875,090
Ohio			756,382	1,144,706	3,145,106	3,199,641	2,229,990
Wisconsin			188,355	458,223	1,336,957	1,509,516	1,055,795
West North Central	**251,580**	**306,416**	**439,274**	**803,046**	**2,198,971**	**3,285,293**	**2,739,928**
Iowa			105,106	202,852	517,052	613,404	537,913
Kansas			52,935	89,538	265,146	380,686	292,469
Minnesota			100,758	178,677	554,425	885,481	766,472
Missouri			127,783	231,990	628,970	941,573	756,547
Nebraska			42,394	77,384	174,217	292,336	243,591
North Dakota			2,186	7,695	22,277	72,384	63,301
South Dakota			8,114	14,910	36,884	99,429	79,635
South Atlantic	**487,720**	**597,386**	**748,392**	**1,094,146**	**3,581,501**	**3,882,772**	**2,734,039**
Delaware			680	1,170	2,894	8,041	6,498
District of Columbia			0	0	0	0	0
Florida			24,297	54,786	218,749	304,365	222,042
Georgia			122,268	217,592	709,353	1,091,463	735,816
Maryland			81,983	159,003	480,609	484,449	413,111
North Carolina			38,167	96,134	440,145	520,029	372,000
South Carolina			75,078	86,854	313,732	344,559	246,310
Virginia			99,200	177,878	542,737	722,299	557,467
West Virginia			306,719	300,729	873,282	407,567	180,795
East South Central	**343,356**	**348,642**	**495,572**	**752,002**	**2,695,523**	**2,882,411**	**1,980,694**
Alabama			79,205	140,282	495,051	670,921	403,144
Kentucky			156,277	169,609	528,686	609,693	400,220
Mississippi			92,771	163,268	632,103	490,749	287,433
Tennessee			167,320	278,843	1,039,683	1,111,048	889,897
West South Central	**238,630**	**236,059**	**324,987**	**765,273**	**4,322,831**	**2,836,863**	**1,758,547**
Arkansas			6,684	9,328	34,680	37,353	31,399
Louisiana			192,241	354,067	1,383,886	966,312	578,286
Oklahoma			33,698	91,809	422,361	190,649	78,885
Texas			92,363	310,069	2,481,904	1,642,549	1,069,977
Mountain	**375,843**	**437,321**	**622,947**	**1,349,007**	**4,434,173**	**5,270,940**	**2,734,085**
Arizona			482,102	935,305	3,093,184	3,685,562	1,587,397
Colorado			65,331	163,200	657,917	706,735	548,366
Idaho			24,852	96,221	228,724	184,861	101,202
Montana			3,435	7,289	25,957	72,458	56,621
Nevada			2,950	12,147	36,042	51,030	38,340
New Mexico			20,924	34,447	111,849	112,829	37,723
Utah			4,186	3,113	15,333	277,426	235,792
Wyoming			19,168	97,285	265,167	180,039	128,644
Pacific	**110,949**	**288,567**	**420,664**	**1,070,175**	**3,322,207**	**2,302,502**	**1,417,529**
Alaska			0	0	22,677	0	0
California			249,666	294,546	1,199,764	572,465	388,932
Hawaii			0	0	0	0	0
Oregon			120,229	598,295	1,665,022	1,264,807	753,600
Washington			50,769	177,334	434,744	465,230	274,997

a. Includes natural gas only prior to 1970 and state breakdowns not available prior to 1970.

TABLE 7-5
GAS UTILITY INDUSTRY REVENUES, BY STATE AND CLASS OF SERVICE, 1986

(Thousands)

Division and State	Total	Class of Service				
		Residential	Commercial	Industrial	Electric Generation	Other
United States	**$51,194,197**	**$24,750,086**	**$11,267,985**	**$10,554,154**	**$3,949,011**	**$672,961**
New England	**2,053,700**	**1,187,287**	**583,825**	**231,327**	**37,796**	**13,465**
Connecticut	550,531	316,832	151,382	81,793	41	483
Maine	17,945	4,618	9,085	4,242	0	0
Massachusetts	1,200,111	699,184	350,213	103,319	35,786	11,609
New Hampshire	68,331	34,522	27,320	5,616	0	873
Rhode Island	189,819	120,532	38,828	28,163	1,969	327
Vermont	26,963	11,599	6,997	8,194	0	173
Middle Atlantic	**8,628,278**	**5,262,388**	**1,909,994**	**1,191,901**	**79,290**	**184,705**
New Jersey	1,997,747	1,149,316	535,354	271,379	40,597	1,101
New York	3,833,287	2,497,919	740,736	416,670	37,890	140,052
Pennsylvania	2,797,244	1,615,153	633,884	503,852	803	43,552
East North Central	**12,864,253**	**7,379,468**	**2,899,338**	**2,500,715**	**43,483**	**41,249**
Illinois	3,954,573	2,196,767	913,733	813,897	29,236	940
Indiana	1,571,647	775,741	315,020	472,971	945	6,970
Michigan	2,965,390	1,838,653	694,681	426,601	4,361	1,094
Ohio	3,032,971	1,882,132	704,052	414,225	1,341	31,221
Wisconsin	1,339,672	686,175	271,852	373,021	7,600	1,024
West North Central	**4,356,593**	**2,107,936**	**1,139,728**	**1,055,663**	**35,124**	**18,142**
Iowa	836,090	376,103	195,704	258,977	4,282	1,024
Kansas	726,500	271,559	148,813	282,760	16,109	7,259
Minnesota	1,068,779	535,463	258,897	267,289	3,689	3,441
Missouri	1,103,744	624,299	328,910	138,381	6,833	5,321
Nebraska	414,124	196,771	129,226	83,145	4,077	905
North Dakota	102,503	49,418	46,400	6,600	31	54
South Dakota	104,853	54,323	31,778	18,511	103	138
South Atlantic	**5,095,965**	**2,146,196**	**1,280,234**	**1,344,615**	**302,339**	**22,581**
Delaware	115,218	48,603	22,285	41,656	2,532	142
District of Columbia	203,788	97,270	106,518	0	0	0
Florida	701,026	97,999	149,999	159,883	283,384	9,761
Georgia	1,221,603	579,325	277,755	352,791	9,354	2,378
Maryland	755,235	456,848	175,114	120,734	2,513	26
North Carolina	608,360	205,484	142,620	257,204	2,685	367
South Carolina	421,647	113,509	86,329	219,977	525	1,307
Virginia	669,034	305,717	215,163	139,356	567	8,231
West Virginia	400,054	241,441	104,451	53,014	779	369
East South Central	**2,293,208**	**916,794**	**521,506**	**742,158**	**63,729**	**49,021**
Alabama	718,839	288,244	136,014	290,972	405	3,204
Kentucky	545,376	293,659	129,880	100,545	0	21,292
Mississippi	413,804	138,119	63,696	130,044	63,244	18,701
Tennessee	615,189	196,772	191,916	220,597	80	5,824
West South Central	**6,864,686**	**1,827,169**	**893,598**	**1,853,830**	**2,004,648**	**285,441**
Arkansas	410,797	160,152	94,903	138,600	16,291	851
Louisiana	780,850	316,261	116,037	201,087	97,888	49,577
Oklahoma	621,142	327,654	151,541	133,499	6,378	2,070
Texas	5,051,897	1,023,102	531,117	1,380,644	1,884,091	232,943
Mountain	**2,269,551**	**1,171,787**	**674,399**	**298,990**	**76,831**	**47,574**
Arizona	338,220	158,079	105,614	38,205	27,998	8,324
Colorado	759,053	404,692	257,478	80,545	14,791	1,547
Idaho	106,651	46,706	39,919	20,026	0	0
Montana	155,632	74,995	49,334	24,462	76	6,765
Nevada	158,474	72,313	56,218	12,644	15,747	1,552
New Mexico	267,326	140,983	58,190	22,061	16,859	29,233
Utah	359,651	215,804	69,373	73,403	923	148
Wyoming	124,544	58,185	38,273	27,644	437	5
Pacific	**6,767,963**	**2,751,091**	**1,365,363**	**1,334,955**	**1,305,771**	**10,783**
Alaska	106,977	39,016	31,741	0	36,220	0
California	5,750,067	2,385,659	1,050,697	1,034,456	1,269,551	9,704
Hawaii	37,465	9,102	15,472	12,891	0	0
Oregon	321,391	126,371	94,856	100,164	0	0
Washington	552,063	190,943	172,597	187,444	0	1,079

TABLE 7-6
GAS UTILITY INDUSTRY FIRM AND INTERRUPTIBLE GAS REVENUES, BY STATE, 1986

(Thousands)

Division and State	Commercial			Industrial[a]		
	Total	Firm	Interruptible	Total	Firm	Interruptible
United States	**$11,267,985**	**$10,725,046**	**$542,939**	**$10,554,154**	**$6,201,977**	**$4,352,177**
New England	**583,825**	**554,880**	**28,945**	**231,327**	**160,828**	**70,499**
Connecticut	151,382	128,130	23,252	81,793	55,643	26,150
Maine	9,085	9,085	0	4,242	3,965	277
Massachusetts	350,213	344,520	5,693	103,319	81,882	21,437
New Hampshire	27,320	27,320	0	5,616	3,414	2,202
Rhode Island	38,828	38,828	0	28,163	15,132	13,031
Vermont	6,997	6,997	0	8,194	792	7,402
Middle Atlantic	**1,909,994**	**1,826,835**	**83,159**	**1,191,901**	**851,160**	**340,741**
New Jersey	535,354	505,561	29,793	271,379	153,299	118,080
New York	740,756	719,469	21,287	416,670	301,215	115,455
Pennsylvania	633,884	601,805	32,079	503,852	396,646	107,206
East North Central	**2,899,338**	**2,841,996**	**57,342**	**2,500,715**	**1,829,165**	**671,550**
Illinois	913,733	907,434	6,299	813,897	623,033	190,864
Indiana	315,020	298,189	16,831	472,971	324,934	148,037
Michigan	694,681	689,684	4,997	426,601	298,604	127,997
Ohio	704,052	700,373	3,679	414,225	376,065	38,160
Wisconsin	271,852	246,316	25,536	373,021	206,529	166,492
West North Central	**1,139,728**	**1,045,374**	**94,354**	**1,055,663**	**393,502**	**662,161**
Iowa	195,704	170,957	24,747	258,977	198,711	60,266
Kansas	148,813	142,922	5,891	282,760	30,473	252,287
Minnesota	258,897	238,742	20,155	267,289	78,837	188,452
Missouri	328,910	309,884	19,026	138,381	44,688	93,693
Nebraska	129,226	119,136	10,090	83,145	35,778	47,367
North Dakota	46,400	34,885	11,515	6,600	60	6,540
South Dakota	31,778	28,848	2,930	18,511	4,955	13,556
South Atlantic	**1,280,234**	**1,148,257**	**131,977**	**1,344,615**	**653,483**	**691,132**
Delaware	22,285	22,065	220	41,656	29,414	12,242
District of Columbia	106,518	80,781	25,737	0	0	0
Florida	149,999	138,856	11,143	159,883	24,731	135,152
Georgia	277,755	277,217	538	352,791	71,980	280,811
Maryland	175,114	136,969	38,145	120,734	95,395	25,339
North Carolina	142,620	139,181	3,439	257,204	181,373	75,831
South Carolina	86,329	70,206	16,123	219,977	110,552	109,425
Virginia	215,163	182,617	32,546	139,356	87,336	52,020
West Virginia	104,451	100,365	4,086	53,014	52,702	312
East South Central	**521,506**	**492,170**	**29,336**	**742,158**	**496,070**	**246,088**
Alabama	136,014	119,836	16,178	290,972	163,523	127,449
Kentucky	129,880	123,387	6,493	100,545	64,372	36,173
Mississippi	63,696	63,685	11	130,044	121,233	8,811
Tennessee	191,916	185,262	6,654	220,597	146,942	73,655
West South Central	**893,598**	**885,886**	**7,712**	**1,853,830**	**1,415,398**	**438,432**
Arkansas	94,903	94,532	371	138,600	97,108	41,492
Louisiana	116,037	115,689	348	201,087	180,799	20,288
Oklahoma	151,541	148,347	3,194	133,499	67,291	66,208
Texas	531,117	527,318	3,799	1,380,644	1,070,200	310,444
Mountain	**674,399**	**670,279**	**4,120**	**298,990**	**217,038**	**81,952**
Arizona	105,614	105,391	223	38,205	38,071	134
Colorado	257,478	256,013	1,465	80,545	29,173	51,372
Idaho	39,919	39,919	0	20,026	18,266	1,760
Montana	49,334	48,219	1,115	24,462	3,215	21,247
Nevada	56,218	56,218	0	12,644	12,644	0
New Mexico	58,190	57,076	1,114	22,061	21,463	598
Utah	69,373	69,373	0	73,403	73,403	0
Wyoming	38,273	38,070	203	27,644	20,803	6,841
Pacific	**1,365,363**	**1,259,369**	**105,994**	**1,334,955**	**185,333**	**1,149,622**
Alaska	31,741	31,741	0	0	0	0
California	1,050,697	994,679	56,018	1,034,456	68,360	966,096
Hawaii	15,472	14,175	1,297	12,891	12,891	0
Oregon	94,856	92,220	2,636	100,164	40,841	59,323
Washington	172,597	126,554	46,043	187,444	63,241	124,203

a. Does not include electric generation.

TABLE 7-7
REVENUES FROM GAS UTILITY INDUSTRY SALES, BY TYPE OF INDUSTRY CLASSIFICATION, 1960–1986

(Thousands)

Industry Classification	1960	1965	1970	1975	1980	1985	1986
Agriculture, forestry and fisheries	$ 3,447	$ 4,553	$ 13,373	$ 41,816	$ 137,952	$ 208,390	$ 141,943
Petroleum and natural gas production	13,023	23,092	29,116	67,556	90,824	229,276	129,141
Other mining	10,738	18,697	18,744	44,664	214,732	111,223	64,774
Electric services[a]	366,946	461,037	750,879	1,482,516	6,750,928	8,693,019	4,699,156
Other transportation, communication, and public utilities	6,212	12,867	36,820	99,971	276,149	408,828	275,866
Hotels, rooming houses, and camps	5,225	12,317	34,089	85,216	97,974	193,306	188,548
Laundries, cleaning and dyeing	1,495	7,969	12,508	30,095	76,146	164,781	159,773
Other services	11,615	25,434	82,737	274,992	1,025,544	1,892,707	1,624,921
Other non-manufacturing	13,826	32,472	105,186	228,982	571,193	1,624,996	1,617,108
Ordnance	5,362	5,938	14,216	b	b	b	b
Food and kindred products	57,331	88,419	140,016	352,172	991,498	1,135,245	751,721
Textile products, apparel, fabrics, etc.	7,459	16,613	32,563	58,468	191,077	270,267	229,296
Furniture, lumber, and other wood products	7,432	18,713	25,097	65,210	166,086	163,813	111,534
Paper and allied products	54,020	80,392	137,086	258,795	760,852	791,030	447,228
Carbon black	2,435	9,198	12,613	26,646	65,844	9,976	5,704
Chemicals and allied products (except carbon black)	154,556	208,820	303,261	821,397	2,158,091	2,051,301	1,174,561
Petroleum refining	87,605	88,023	167,312	502,402	1,333,883	488,352	205,209
Rubber and miscellaneous plastic products	5,454	12,314	20,483	47,694	164,015	197,481	132,398
Glass products	59,693	73,844	92,362	183,233	524,302	429,443	289,048
Cement	47,540	52,129	81,001	130,210	135,038	35,363	20,929
Clay products, pottery, etc.	49,764	60,873	63,707	111,670	250,795	254,079	172,807
Other stone products and miscellaneous	11,335	26,502	61,841	103,389	277,604	223,292	160,041
Primary iron and steel industries	149,646	232,470	313,595	568,959	1,533,627	1,123,360	655,664
Primary non-ferrous industries	58,181	88,218	89,949	268,145	768,053	562,798	335,796
Fabricated metal products, machinery equipment and supplies	55,360	93,760	162,290	319,800	729,513	957,537	748,860
Transportation equipment	30,767	53,093	92,514	194,678	286,168	404,121	276,108
Other manufacturing	13,053	23,883	45,777	129,238	377,918	613,265	542,110
Public Administration	c	c	c	74,956	227,343	450,563	394,890
Unclassified[d]	500,856	565,048	608,138	4,377,080	11,861,154	13,951,654	11,617,001
Total Gas Utility Industry Commercial, Industrial and "Other" revenues[a,e]	**$1,790,396**	**$2,396,688**	**$3,547,273**	**$10,949,930**	**$32,044,303**	**$37,639,466**	**$27,172,135**
Total Commercial, Industrial and "Other" revenues of co.'s reporting this table	**$1,514,995**	**$2,123,185**	**$3,028,083**	**$ 9,473,153**	**$23,675,795**	**$26,851,517**	**$19,046,523**
Transfers[a]	**$73,887**	**$72,919**	**$92,443**	**$293,936**	**$1,173,364**	**$1,210,334**	**$728,024**

a. Includes "revenues" detailed as transfers of gas for electric generation which are not included in Total Commercial, Industrial and "Other" revenues of companies reporting this table or in Total Gas Utility Industry revenues. Such "revenues" represent credits by the electric department to the gas department of combination gas and electric companies.
b. Classification eliminated.
c. New classification in 1972.
d. Difference between total and classified revenues.
e. Includes Industrial and "Other" sales only prior to 1971.
Note: Prior to 1982 only large volume sales detailed by SIC.

TABLE 7-9
GAS UTILITY INDUSTRY REVENUES FROM GAS USED FOR ELECTRIC GENERATION, 1960-1986[a]

(Thousands)

Year	Revenue				Credits[c]	Total Revenue and Credits
	Industrial[b]					
	Firm	Interruptible	Other	Total Revenue		
1960		$228,474	$ 64,585	$ 293,059	$ 73,887	$ 366,946
1961		247,811	75,437	323,248	74,988	398,236
1962		264,637	86,810	351,447	75,747	427,194
1963		282,932	96,808	379,740	73,517	453,257
1964		304,974	107,193	412,167	77,919	490,086
1965		293,999	94,119	388,118	72,919	461,037
1966		325,605	114,051	439,656	73,073	512,729
1967		346,912	96,643	443,555	75,298	518,853
1968		380,995	117,159	498,154	80,816	578,970
1969		426,325	112,454	538,779	71,747	610,526
1970		520,882	137,553	658,435	92,443	750,878
1971	$ 237,111	$ 335,539	160,035	732,685	201,213	933,898
1972	277,344	294,885	201,865	774,094	193,655	967,749
1973	185,106	309,653	214,419	709,178	197,418	906,596
1974	271,516	395,889	225,124	892,529	269,148	1,161,677
1975	352,660	473,951	361,969	1,188,580	293,936	1,482,516
1976	594,784	1,075,885	d	1,670,669	315,935	1,986,604
1977	779,919	1,535,133	d	2,315,052	379,274	2,694,326
1978	953,406	1,452,434	d	2,405,840	330,572	2,736,412
1979	1,424,871	2,063,626	d	3,488,497	721,948	4,210,445
1980	2,417,592	3,159,972	d	5,577,564	1,173,364	6,750,928
1981	3,037,233	4,273,885	d	7,311,118	1,213,728	8,524,846
1982	3,075,361	4,832,346	d	7,907,707	1,321,944	9,229,651
1983	2,486,220	4,253,117	d	6,739,337	1,351,422	8,090,759
1984	2,536,993	4,852,280	d	7,389,273	1,481,561	8,870,834
1985	2,857,907	4,569,758	d	7,427,665	1,210,334	8,637,999
1986	1,805,826	2,143,185	d	3,949,011	728,024	4,677,035

a. Excludes revenues from direct sales by producers to straight electric utilities.
b. No breakdown available prior to 1971.
c. Represents "Revenues" from transfers of gas for electric generation. Such "Revenues" are credits by the electric department to the gas department of combination gas and electric companies.
d. Other now included with Industrial to conform to the definition of industrial services.

TABLE 7-10
GAS UTILITY INDUSTRY REVENUES, GAS USED FOR ELECTRIC GENERATION, BY STATE, 1988[a]

(Thousands)

Division and State	Industrial Revenue			Credits[b]	Total Revenue and Credits
	Firm	Interruptible	Total		
United States	**1,805,826**	**2,143,185**	**3,949,011**	**728,024**	**4,677,035**
New England	**734**	**37,062**	**37,796**	**1,369**	**39,165**
Connecticut	0	41	41	1,369	1,410
Maine	0	0	0	0	0
Massachusetts	734	35,052	35,786	0	35,786
New Hampshire	0	0	0	0	0
Rhode Island	0	1,969	1,969	0	1,969
Vermont	0	0	0	0	0
Middle Atlantic	**4,372**	**74,918**	**79,290**	**343,135**	**422,425**
New Jersey	2,120	38,477	40,597	62,826	103,423
New York	1,720	36,170	37,890	280,309	318,199
Pennsylvania	532	271	803	0	803
East North Central	**29,469**	**14,014**	**43,483**	**4,151**	**47,634**
Illinois	24,976	4,260	29,236	153	29,389
Indiana	945	0	945	3,998	4,943
Michigan	2,182	2,179	4,361	0	4,361
Ohio	953	388	1,341	0	1,341
Wisconsin	413	7,187	7,600	0	7,600
West North Central	**6,021**	**29,103**	**35,124**	**5,921**	**41,045**
Iowa	1,382	2,900	4,282	840	5,122
Kansas	1,450	14,659	16,109	1,763	17,872
Minnesota	393	3,296	3,689	2,670	6,359
Missouri	13	6,820	6,833	648	7,481
Nebraska	2,783	1,294	4,077	0	4,077
North Dakota	0	31	31	0	31
South Dakota	0	103	103	0	103
South Atlantic	**4,588**	**297,751**	**302,339**	**6,621**	**308,960**
Delaware	2,533	0	2,532	2,760	5,292
District of Columbia	0	0	0	0	0
Florida	1,876	281,508	283,384	0	283,384
Georgia	0	9,354	9,354	0	9,354
Maryland	180	2,333	2,513	1,522	4,035
North Carolina	0	2,685	2,685	0	2,685
South Carolina	0	525	525	2,339	2,864
Virginia	0	567	567	0	567
West Virginia	0	779	779	0	779
East South Central	**61,408**	**2,371**	**63,729**	**46**	**63,775**
Alabama	93	312	405	0	405
Kentucky	0	0	0	46	46
Mississippi	61,365	1,879	63,244	0	63,244
Tennessee	0	80	80	0	80
West South Central	**1,599,016**	**405,632**	**2,004,648**	**338,807**	**2,343,455**
Arkansas	16,286	5	16,291	0	16,291
Louisiana	85,262	12,626	97,888	45,725	143,613
Oklahoma	987	5,391	6,378	169,700	176,078
Texas	1,496,481	397,610	1,884,091	143,382	2,027,473
Mountain	**69,299**	**7,532**	**76,831**	**7,974**	**84,805**
Arizona	27,753	245	27,998	0	27,998
Colorado	7,580	7,211	14,791	346	15,137
Idaho	0	0	0	0	0
Montana	0	76	76	393	469
Nevada	15,747	0	15,747	7,235	22,982
New Mexico	16,859	0	16,859	0	16,859
Utah	923	0	923	0	923
Wyoming	437	0	437	0	437
Pacific	**40,869**	**1,364,902**	**1,305,771**	**0**	**1,305,771**
Alaska	0	36,220	36,220	0	36,220
California	40,869	1,228,682	1,269,551	0	1,269,551
Hawaii	0	0	0	0	0
Oregon	0	0	0	0	0
Washington	0	0	0	0	0

a. Excludes revenues from direct sales by producers to electric utilities.
b. Represents "Revenues" from transfers of gas for electric generation. Such "Revenues" are credits by the electric department to the gas department of combination gas and electric companies.

SECTION 8
CUSTOMERS

	Average Customers	
	1986	% Change 86/85
Gas Utility Industry		
(Thousands)		
Total	50,710.3	+ 1.5
Residential	46,588.1	+ 1.4
Commercial	3,892.6	+ 2.0
Industrial	177.6	− 0.8
Other	52.0	+10.0

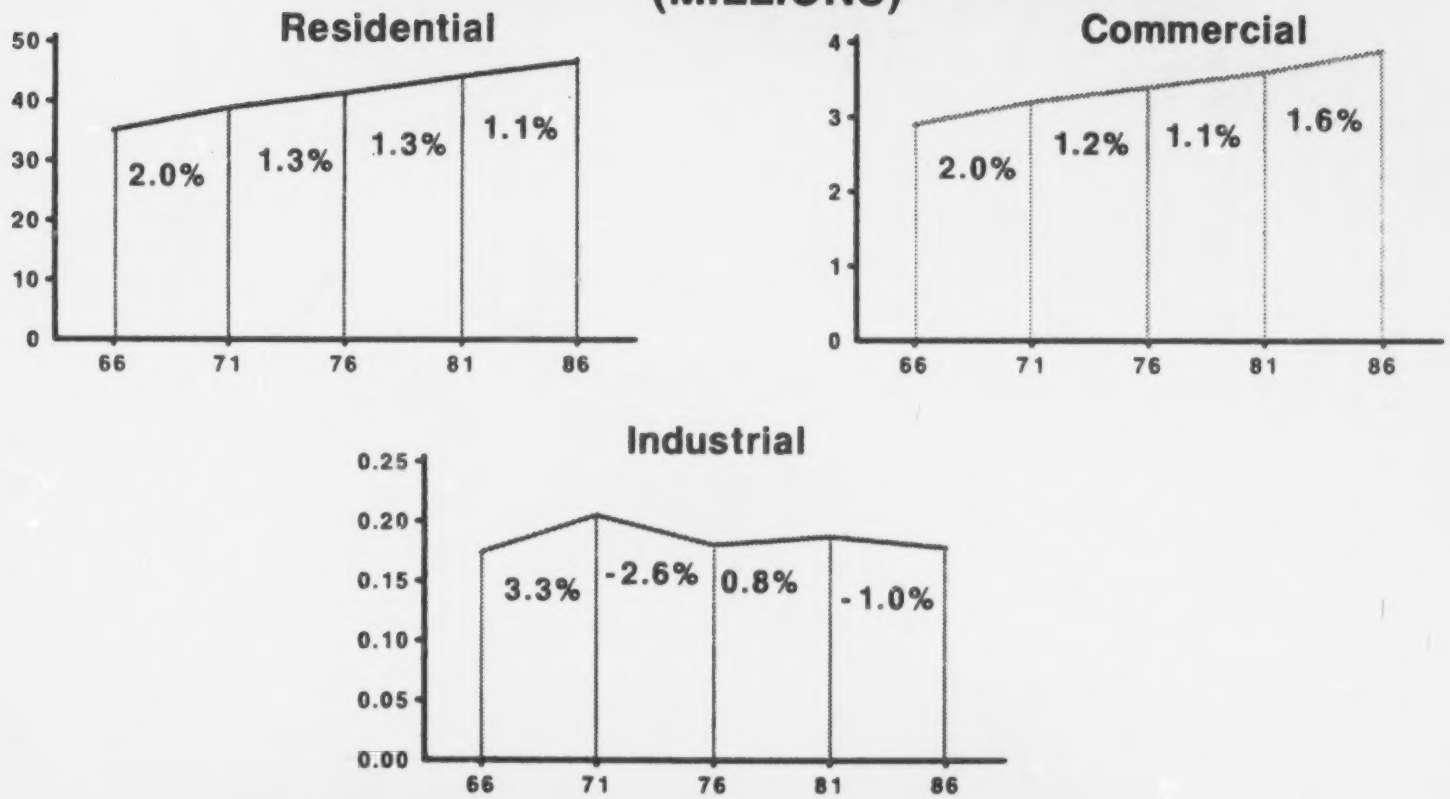
TABLE 7-8
GAS UTILITY INDUSTRY REVENUES BY TYPE OF INDUSTRY CLASSIFICATION AND BY DIVISION, 1986

(Thousands)

Industry Classification	Total U.S.	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Agriculture, forestry and fisheries	$ 141,943	$ 1,137	$ 4,354	$ 35,118	$ 12,532	$ 827	$ 4,309	$ 28,922	$ 4,796	$ 49,948
Petroleum and natural gas production	129,141	14	139	302	77,337	2	4,542	2,037	3,347	41,421
Other mining	64,774	11	1,575	8,776	1,790	12,076	248	27,687	3,577	9,034
Electric services[a]	4,699,156	39,166	422,991	51,006	41,233	309,732	63,778	2,363,455	84,805	1,322,990
Other transportation, communication, and public utilities	275,866	8,896	44,648	74,232	29,273	3,771	17,678	4,365	8,995	84,008
Hotels, rooming houses, and camps	188,548	7,027	27,589	49,673	11,470	12,612	5,701	1,889	10,072	62,515
Laundries, cleaning and dyeing	159,773	6,329	14,970	45,529	3,235	4,507	8,314	1,094	4,870	70,925
Other services	1,624,921	57,351	185,844	731,214	106,197	51,077	56,878	17,630	55,538	363,192
Other non-manufacturing	1,617,108	133,640	258,536	588,972	88,673	112,830	50,796	4,425	47,672	331,559
Food and kindred products	751,721	7,420	83,855	219,116	143,504	54,245	30,754	15,102	10,076	187,649
Textile products, apparel, fabrics, etc.	229,296	11,804	17,712	14,919	700	146,136	14,927	320	281	22,497
Furniture, lumber, and other wood products	111,534	1,450	10,035	28,928	3,716	11,003	10,150	948	993	44,309
Paper and allied products	447,228	6,192	66,015	111,748	12,571	62,192	48,283	16,960	18,082	105,185
Carbon black	5,704	54	0	548	0	1,111	2,152	750	0	1,089
Chemicals and allied products (except carbon black)	1,174,561	9,663	69,048	236,836	84,067	157,613	66,559	461,680	6,299	82,796
Petroleum refining	205,209	4	9,066	25,446	10,386	13,834	1,920	657	1,701	142,195
Rubber and miscellaneous plastic products	132,398	4,493	13,484	58,432	5,018	21,633	10,533	396	606	17,803
Glass products	289,048	6,144	84,117	53,346	6,161	44,212	29,234	3,330	0	62,504
Cement	20,929	0	1,257	2,208	408	1,637	3,973	612	1,459	9,380
Clay products, pottery, etc.	172,807	1,767	13,388	14,748	22,069	84,163	12,635	2,477	1,493	20,047
Other stone products and miscellaneous	160,041	6,433	24,951	31,974	12,598	24,746	7,562	3,282	3,930	44,565
Primary iron and steel industries	655,664	12,303	111,987	386,223	19,733	23,495	67,900	161	128	33,734
Primary non-ferrous industries	335,796	8,435	24,403	127,783	25,399	18,883	29,746	21,650	13,824	65,673
Fabricated metal products, machinery equipment and supplies	748,860	31,034	88,298	371,640	47,904	37,314	38,489	13,839	6,191	114,151
Transportation equipment	276,108	6,641	20,628	129,010	29,219	22,905	12,001	4,241	966	48,497
Other manufacturing	542,110	15,826	63,036	134,206	21,645	32,279	28,027	183,363	7,121	56,607
Public administration	204,890	9,966	68,144	82,357	27,673	46,497	26,269	28,506	22,970	82,508
Unclassified	11,617,001	472,582	1,978,955	1,874,646	1,410,067	1,645,058	723,082	2,186,546	785,974	540,091
Total Gas Utility Industry Commercial, Industrial and "Other" revenues[a]	**$ 27,172,135**	**$ 867,782**	**$ 3,709,025**	**$ 5,488,936**	**$ 2,254,578**	**$ 2,956,390**	**$ 1,376,460**	**$ 5,396,324**	**$ 1,105,768**	**$ 4,016,872**
Total Commercial, Industrial and "Other" revenues of co.'s reporting this table	**$ 19,046,523**	**$ 567,831**	**$ 2,940,806**	**$ 4,506,358**	**$ 1,414,621**	**$ 2,001,624**	**$ 794,435**	**$ 2,581,417**	**$ 613,625**	**$ 3,625,806**
Transfers[a]	**$ 728,024**	**$ 1,369**	**$ 343,135**	**$ 4,151**	**$ 5,921**	**$ 6,621**	**$ 46**	**$ 358,807**	**$ 7,974**	**$ 0**

a. Includes "revenues" detailed as transfers of gas for electric generation which are not included in Total Commercial, Industrial and "Other" revenues of companies reporting this table or in Total Gas Utility Industry revenues. Such "revenues" represent credits by the electric department of combination gas and electric companies.

GAS UTILITY INDUSTRY CUSTOMERS (MILLIONS)



% Equals Compound Annual Growth Rates

REFERENCE: TABLE 8-1

CUSTOMERS

TABLE 8-1
GAS UTILITY INDUSTRY CUSTOMERS, BY CLASS OF SERVICE, YEARLY AVERAGES, 1960-1986[a]

(Thousands)

Year	Total	Residential	Commercial	Industrial[b]	Other[b]
1960	33,053.8	30,417.5	2,458.3	140.6	37.4
1961	33,830.5	31,118.2	2,528.9	146.7	36.7
1962	34,683.4	31,893.0	2,597.9	155.9	36.6
1963	35,551.0	32,710.8	2,639.6	161.7	38.9
1964	36,463.3	33,551.2	2,712.2	159.4	40.5
1965	37,337.5	34,340.8	2,789.7	166.2	40.8
1966	38,228.4	35,141.8	2,868.2	173.9	44.5
1967	39,076.5	35,915.1	2,933.6	181.2	46.6
1968	39,930.0	36,691.1	3,003.6	188.1	47.2
1969	40,854.0	37,538.3	3,073.8	192.7	49.2
1970	41,482.1	38,097.0	3,130.9	199.1	55.1
1971	42,241.9	38,788.7	3,199.0	204.7	49.5
1972	42,954.8	39,428.0	3,263.6	209.2	54.1
1973	43,711.2	40,115.5	3,331.4	209.1	55.2
1974	44,267.2	40,626.7	3,392.0	193.8	54.7
1975	44,554.5	40,950.3	3,366.9	183.5	53.8
1976	44,941.4	41,337.6	3,371.5	179.7	52.6
1977	45,274.0	41,682.4	3,371.0	173.3	47.3
1978	45,788.9	42,183.2	3,369.8[c]	189.2[c]	46.7
1979	46,478.3	42,821.3	3,422.8	189.4	44.8
1980	47,225.1	43,489.4	3,499.9	187.2	48.6
1981	47,947.5	44,149.3	3,564.5	187.2	46.5
1982	48,414.9	44,552.3	3,631.1	186.1	45.4
1983	48,799.2	44,893.8	3,676.3	182.2	46.8
1984	49,324.6	45,366.9	3,730.3	180.2	47.2
1985[R]	49,970.7	45,928.7	3,815.7	179.0	47.3
1986	50,710.3	46,588.1	3,892.6[d]	177.6	52.0[d]

a. Excludes data for Alaska prior to 1961.
b. Prior to 1976, "Other" electric generation customers included in the "Other" class of service. For 1976 and beyond all electric generation customers included in the Industrial category.
c. Reclassification of customers from commercial to industrial.
d. Reclassification of customers from commercial to other.
R–Revised.

TABLE 8-2
GAS UTILITY INDUSTRY AVERAGE CUSTOMERS, BY QUARTER, 1960-1986

(Thousands)

Year and Quarter	Total	Residential	Commercial	Industrial[a]	Other[a]
1960					
First	32,882	30,220	2,486	139	37
Second	32,685	30,098	2,409	141	37
Third	32,638	30,099	2,363	140	36
Fourth	33,508	30,802	2,524	141	41
1965					
First	37,174	34,156	2,814	163	41
Second	36,963	34,014	2,743	165	41
Third	36,932	34,021	2,704	167	40
Fourth	37,967	34,886	2,870	169	42
1970					
First	41,491	38,063	3,175	199	54
Second	41,419	38,058	3,109	199	53
Third	41,080	37,773	3,054	198	55
Fourth	41,939	38,494	3,186	201	58
1975					
First	44,762	41,099	3,406	194	63
Second	44,386	40,806	3,348	181	51
Third	44,233	40,686	3,322	177	48
Fourth	44,839	41,210	3,393	182	54
1980					
First	47,394	43,605	3,552	188	49
Second	47,190	43,443	3,511	187	49
Third	46,873	43,210	3,429	186	48
Fourth	47,444	43,699	3,509	187	49
1981					
First	48,159	44,315	3,609	188	47
Second	47,942	44,140	3,567	188	47
Third	47,573	43,839	3,503	186	45
Fourth	48,116	44,303	3,580	186	47
1982					
First	48,723	44,803	3,687	188	45
Second	48,429	44,558	3,638	187	46
Third	47,990	44,197	3,564	184	45
Fourth	48,517	44,650	3,636	185	46
1983					
First	49,089	45,127	3,731	184	47
Second	48,813	44,900	3,683	183	47
Third	48,348	44,512	3,609	181	46
Fourth	48,945	45,035	3,683	181	47
1984					
First	49,587	45,585	3,773	181	48
Second	49,322	45,363	3,732	180	47
Third	48,896	45,004	3,666	179	47
Fourth	49,494	45,516	3,751	180	47
1985					
First	50,244	46,147	3,868	181	48
Second	49,917	45,876	3,814	180	47
Third	49,567	45,595	3,747	178	47
Fourth	50,158	46,099	3,834	178	47
1986					
First	50,926	46,749	3,945	180	52
Second	50,626	46,508	3,888	178	52
Third	50,328	46,278	3,823	176	51
Fourth	50,961	46,818	3,915	176	52

a. Prior to 1976, "Other" electric generation customers included in the "Other" class of service. For 1976 and beyond all electric generation customers included in the Industrial category.

TABLE 6-3
GAS UTILITY INDUSTRY AVERAGE CUSTOMERS, BY STATE, 1960-1986[a]

(Thousands)

Division and State	1960	1965	1970	1975	1980	1985[R]	1986
United States	**33,053.8**	**37,337.5**	**41,482.1**	**44,554.5**	**47,225.1**	**49,970.7**	**50,710.3**
New England	**1,622.6**	**1,641.6**	**1,692.3**	**1,692.5**	**1,734.6**	**1,839.3**	**1,873.2**
Connecticut	376.7	378.8	393.7	392.5	405.0	433.0	441.0
Maine	33.4	28.5	23.4	18.1	15.0	15.2	15.4
Massachusetts	1,002.3	1,024.7	1,055.3	1,055.4	1,079.3	1,130.3	1,149.4
New Hampshire	37.4	40.2	44.1	45.4	50.9	57.9	58.8
Rhode Island	155.9	154.5	161.4	164.6	168.9	184.8	189.3
Vermont	16.9	14.9	14.4	16.6	15.4	18.0	19.3
Middle Atlantic	**7,607.6**	**7,919.6**	**8,192.1**	**8,230.3**	**8,111.4**	**8,362.7**	**8,452.9**
New Jersey	1,504.9	1,640.6	1,763.1	1,815.1	1,849.1	1,955.2	2,001.5
New York	3,953.5	4,076.4	4,125.6	4,102.5	3,925.5	4,023.5	4,051.3
Pennsylvania	2,149.2	2,202.5	2,303.4	2,312.7	2,336.8	2,384.0	2,400.1
East North Central	**7,318.9**	**8,400.3**	**9,508.7**	**10,253.1**	**10,777.8**	**11,118.9**	**11,261.6**
Illinois	2,279.4	2,634.6	2,938.4	3,134.2	3,304.2	3,355.8	3,386.0
Indiana	780.0	933.8	1,084.4	1,187.7	1,241.1	1,310.0	1,330.3
Michigan	1,502.1	1,732.9	2,018.5	2,234.5	2,443.3	2,550.9	2,591.8
Ohio	2,208.4	2,424.2	2,644.5	2,757.8	2,746.5	2,794.1	2,837.7
Wisconsin	549.0	674.8	822.9	939.0	1,042.7	1,108.1	1,129.8
West North Central	**2,655.5**	**3,074.7**	**3,499.9**	**3,820.4**	**4,126.5**	**4,373.4**	**4,424.8**
Iowa	440.4	541.9	642.1	691.6	745.4	764.2	766.0
Kansas	532.8	586.5	643.1	669.8	723.0	787.3	794.3
Minnesota	476.1	560.9	640.9	726.8	809.4	909.8	935.2
Missouri	816.8	933.4	1,068.2	1,167.1	1,218.4	1,241.0	1,253.7
Nebraska	288.4	330.2	367.7	400.5	442.4	466.3	469.2
North Dakota	39.4	47.4	55.2	71.3	85.7	94.6	95.1
South Dakota	61.6	74.4	82.6	93.1	102.4	110.1	111.3
South Atlantic	**2,507.3**	**2,995.6**	**3,528.9**	**3,861.9**	**4,042.2**	**4,404.6**	**4,515.7**
Delaware	64.2	73.3	81.4	82.8	81.5	85.2	87.1
District of Columbia	177.3	172.4	162.8	155.4	148.6	145.3	145.6
Florida	246.1	294.2	370.1	391.8	433.0	460.5	462.7
Georgia	534.9	670.9	804.4	912.3	1,025.9	1,195.6	1,247.4
Maryland	558.7	639.6	712.5	774.6	773.5	803.0	809.0
North Carolina	121.6	193.2	285.2	338.0	366.7	444.5	466.8
South Carolina	87.0	154.7	233.3	283.1	296.2	319.3	325.9
Virginia	361.8	432.7	497.3	528.4	523.2	563.8	585.4
West Virginia	357.2	364.6	381.9	395.4	393.6	387.3	386.8
East South Central	**1,470.9**	**1,699.6**	**1,947.2**	**2,139.2**	**2,211.6**	**2,285.7**	**2,314.9**
Alabama	453.3	522.1	588.8	637.1	679.0	688.4	697.8
Kentucky	432.9	506.0	583.0	631.3	626.7	643.7	647.9
Mississippi	271.2	310.6	347.3	380.3	396.7	403.7	405.1
Tennessee	313.5	360.9	428.1	490.5	509.3	549.4	564.1
West South Central	**3,840.3**	**4,329.9**	**4,758.5**	**5,092.0**	**5,509.8**	**5,847.6**	**5,869.4**
Arkansas	299.1	362.1	419.3	461.4	489.9	530.9	532.8
Louisiana	701.2	804.7	871.3	935.9	1,002.3	995.8	990.1
Oklahoma	602.8	648.7	697.6	740.5	816.4	902.8	898.4
Texas	2,237.2	2,514.4	2,770.3	2,954.2	3,201.2	3,418.1	3,448.1
Mountain	**1,267.8**	**1,587.3**	**1,892.9**	**2,311.6**	**2,700.3**	**3,041.1**	**3,091.7**
Arizona	300.3	374.1	447.5	554.1	579.1	595.4	593.8
Colorado	388.4	483.7	586.5	688.8	850.1	1,011.1	1,043.8
Idaho	27.0	52.2	79.0	107.5	108.6	116.9	119.3
Montana	118.6	137.6	150.8	173.4	182.7	189.1	188.8
Nevada	24.6	47.8	72.4	112.2	168.2	201.2	211.7
New Mexico	176.6	203.8	231.8	278.9	327.6	367.1	375.2
Utah	166.5	211.9	243.8	297.4	361.0	432.9	432.8
Wyoming	65.8	74.2	81.1	99.2	122.9	127.5	126.3
Pacific	**4,762.9**	**5,688.9**	**6,461.6**	**7,153.5**	**8,010.8**	**8,697.9**	**8,906.1**
Alaska	b	6.1	17.4	29.1	42.1	72.2	76.3
California	4,506.6	5,311.1	5,919.4	6,495.1	7,286.3	7,888.0	8,071.2
Hawaii	39.8	36.2	36.1	34.8	33.2	32.8	33.1
Oregon	105.6	146.2	197.5	248.2	275.3	303.6	311.6
Washington	110.9	189.3	291.2	346.3	373.9	401.3	413.9

a. Excludes customers purchasing for resale.
b. Not available.
R–Revised.

TABLE 8-4
GAS UTILITY INDUSTRY CUSTOMERS, BY STATE AND CLASS OF SERVICE, AVERAGES, 1986

(Thousands)

Division and State	Total	Class of Service				
		Residential	Commercial	Industrial	Electric Generation	Other
United States	**50,710.3**	**46,588.1**	**3,892.6**	**177.1**	**0.5**	**52.0**
New England	**1,873.2**	**1,710.9**	**151.3**	**6.9**	**a**	**4.1**
Connecticut	441.0	401.0	37.3	2.6	0.0	0.1
Maine	15.4	12.1	3.2	0.1	0.0	0.0
Massachusetts	1,149.4	1,056.3	86.9	2.8	a	3.4
New Hampshire	58.8	50.5	8.0	0.2	0.0	0.1
Rhode Island	189.3	174.3	13.8	1.2	a	a
Vermont	19.3	16.7	2.1	a	0.0	0.5
Middle Atlantic	**8,452.9**	**7,810.9**	**605.2**	**28.9**	**a**	**10.9**
New Jersey	2,001	1,801.9	193.2	6.4	a	a
New York	4,051.3	3,773.8	254.7	13.7	a	9.1
Pennsylvania	2,400.1	2,235.2	157.3	5.8	a	1.8
East North Central	**11,261.6**	**10,368.8**	**840.2**	**48.5**	**0.1**	**4.0**
Illinois	3,386.0	3,105.8	260.6	18.7	a	0.9
Indiana	1,330.3	1,214.4	110.3	5.0	a	0.6
Michigan	2,591.8	2,407.7	173.8	10.3	a	0.0
Ohio	2,823.7	2,610.9	203.7	6.6	a	2.5
Wisconsin	1,129.8	1,030.0	91.8	7.9	a	a
West North Central	**4,424.8**	**3,965.8**	**423.6**	**13.2**	**0.2**	**2.0**
Iowa	766.0	683.3	80.4	2.0	a	0.3
Kansas	794.3	709.6	80.1	4.2	0.1	0.3
Minnesota	935.2	846.7	83.7	4.3	a	0.5
Missouri	1,253.7	1,157.1	93.1	0.8	a	0.7
Nebraska	469.2	406.9	60.8	1.3	a	0.2
North Dakota	95.1	83.3	11.7	0.1	0.0	a
South Dakota	111.3	98.9	11.8	0.5	a	a
South Atlantic	**4,515.7**	**4,121.7**	**369.6**	**15.5**	**a**	**8.9**
Delaware	87.0	81.1	5.7	0.2	a	a
District of Columbia	145.6	131.0	14.6	0.0	0.0	0.0
Florida	462.7	421.1	40.3	0.6	a	0.7
Georgia	1,247.4	1,154.1	87.4	2.7	a	3.2
Maryland	809.0	750.0	53.8	5.2	a	a
North Carolina	466.8	411.8	52.1	2.8	a	0.1
South Carolina	325.0	290.7	32.6	1.3	a	0.4
Virginia	585.4	527.1	51.5	2.4	a	4.4
West Virginia	386.8	354.8	31.6	0.3	a	0.1
East South Central	**2,314.9**	**2,082.9**	**214.6**	**6.2**	**a**	**11.2**
Alabama	697.8	643.9	49.3	2.0	a	2.6
Kentucky	647.9	587.1	58.3	1.3	0.0	1.2
Mississippi	405.1	364.2	37.9	1.1	a	1.9
Tennessee	564.1	487.7	69.1	1.8	0.0	5.5
West South Central	**5,869.4**	**5,353.6**	**489.0**	**19.3**	**0.1**	**7.4**
Arkansas	532.8	471.0	60.1	1.6	a	0.1
Louisiana	990.1	923.4	64.1	1.3	a	1.3
Oklahoma	898.4	809.5	85.7	2.6	a	0.6
Texas	3,448.1	3,149.7	279.1	13.8	0.1	5.4
Mountain	**3,091.7**	**2,798.5**	**285.1**	**4.8**	**a**	**3.3**
Arizona	593.8	547.7	45.2	0.3	a	0.6
Colorado	1,043.8	933.4	109.4	0.9	a	0.1
Idaho	119.3	102.1	17.0	0.2	0.0	0.0
Montana	188.8	167.1	21.2	0.4	a	0.1
Nevada	211.7	194.7	16.9	0.1	a	a
New Mexico	375.2	337.3	33.3	2.1	a	2.5
Utah	432.8	403.2	29.0	0.6	a	a
Wyoming	126.3	113.0	13.1	0.2	a	a
Pacific	**8,906.1**	**8,355.0**	**514.0**	**36.9**	**a**	**0.3**
Alaska	76.3	65.2	11.1	0.0	a	0.0
California	8,071.2	7,626.1	413.6	31.3	a	0.2
Hawaii	33.1	29.4	2.0	1.7	0.0	0.0
Oregon	311.6	271.7	39.3	0.6	0.0	0.0
Washington	413.9	362.6	48.0	3.3	0.0	a

a. Less than 0.05 thousand.

TABLE 8-6
GAS UTILITY INDUSTRY HOUSEHEATING CUSTOMERS, BY STATE, YEARLY AVERAGES FOR 1970–1986

(Thousands)

Division and State	1970	1975	1980	1985	1986	
					Number	Saturation[a]
United States	**31,208.7**	**34,371.4**	**38,162.6**	**40,781.5**	**41,347.0**	**88.8**
New England	778.8	857.1	1,008.8	1,138.3	1,193.7	69.6
Connecticut	181.0	195.8	216.3	254.1	264.9	66.1
Maine	5.7	4.8	6.7	9.2	12.1	100.0
Massachusetts	443.3	531.5	635.6	698.1	730.4	69.1
New Hampshire	24.2	28.0	36.0	40.3	41.5	82.2
Rhode Island	116.0	86.3	103.0	123.1	130.1	75.7
Vermont	8.6	10.7	11.2	13.5	14.7	89.0
Middle Atlantic	**3,827.2**	**4,127.7**	**4,514.6**	**5,011.2**	**5,016.9**	**64.2**
New Jersey	713.7	793.4	942.6	1,156.7	1,244.2	69.0
New York	1,536.7	1,686.2	1,797.0	1,951.4	1,835.9	48.6
Pennsylvania	1,576.8	1,648.1	1,775.0	1,903.1	1,936.8	86.6
East North Central	**7,527.9**	**8,432.0**	**9,166.2**	**9,671.3**	**9,817.0**	**94.7**
Illinois	2,107.4	2,390.9	2,616.6	2,758.1	2,796.7	90.1
Indiana	813.0	947.6	1,049.9	1,158.4	1,155.0	95.1
Michigan	1,647.3	1,901.2	2,162.0	2,302.9	2,331.8	96.9
Ohio	2,379.2	2,482.0	2,507.3	2,534.1	2,567.8	98.4
Wisconsin	581.0	710.3	830.4	917.8	965.7	93.8
West North Central	**2,915.5**	**3,260.7**	**3,589.9**	**3,783.0**	**3,994.6**	**97.7**
Iowa	515.8	572.9	632.9	657.9	665.8	97.4
Kansas	563.4	595.4	649.6	649.5	702.2	98.9
Minnesota	513.1	598.3	690.9	783.7	808.9	95.5
Missouri	915.6	1,022.8	1,082.8	1,090.1	1,140.3	98.5
Nebraska	298.4	336.2	375.1	397.3	400.6	98.4
North Dakota	41.8	56.5	70.6	78.9	79.6	95.4
South Dakota	67.4	78.6	88.0	95.6	97.2	98.2
South Atlantic	**2,899.2**	**2,969.9**	**3,312.7**	**3,628.9**	**3,706.5**	**89.9**
Delaware	42.5	46.6	51.9	55.4	59.5	73.3
District of Columbia	83.2	86.1	92.0	98.3	100.4	76.6
Florida	247.9	261.7	368.3	370.8	339.2	80.5
Georgia	718.9	810.7	946.0	1,066.7	1,136.2	98.4
Maryland	443.3	528.8	550.2	594.9	608.7	81.1
North Carolina	209.6	274.4	288.2	380.0	393.5	95.5
South Carolina	179.7	226.9	257.1	260.1	269.0	92.5
Virginia	339.0	378.3	402.8	450.2	467.8	88.7
West Virginia	335.1	356.4	356.2	349.5	332.2	93.6
East South Central	**1,695.1**	**1,868.0**	**1,965.4**	**2,008.2**	**2,022.1**	**97.1**
Alabama	539.2	579.9	625.3	623.0	626.8	97.4
Kentucky	490.1	538.0	562.3	561.2	562.1	95.8
Mississippi	311.0	341.8	356.1	358.6	358.9	98.6
Tennessee	354.8	408.3	421.7	465.4	474.3	97.3
West South Central	**4,278.3**	**4,496.0**	**4,997.8**	**4,982.8**	**4,963.4**	**92.7**
Arkansas	371.0	405.8	433.9	379.1	380.3	80.7
Louisiana	737.3	859.3	931.3	894.8	880.5	95.3
Oklahoma	628.3	665.7	731.8	782.4	780.0	96.3
Texas	2,541.7	2,565.2	2,900.8	2,926.5	2,924.4	92.8
Mountain	**1,646.2**	**2,040.4**	**2,406.4**	**2,649.2**	**2,693.8**	**96.2**
Arizona	390.0	492.4	509.1	475.0	471.3	86.0
Colorado	508.7	610.9	759.1	903.8	933.4	100.0
Idaho	65.9	91.4	82.2	99.0	99.0	96.9
Montana	126.9	147.1	161.8	167.0	166.7	99.7
Nevada	65.9	100.7	155.3	162.3	170.3	87.4
New Mexico	203.4	239.4	291.6	330.0	337.3	100.0
Utah	217.6	272.6	338.3	398.8	403.3	100.0
Wyoming	67.8	85.9	109.0	113.3	112.2	99.3
Pacific	**5,940.5**	**6,319.6**	**7,200.8**	**7,941.6**	**8,037.3**	**96.5**
Alaska	14.4	24.0	36.2	61.9	65.2	100.0
California	5,506.9	5,794.5	6,618.4	7,288.5	7,401.1	97.0
Hawaii	0.0	0.0	0.0	0.0	0.0	0.0
Oregon	166.3	206.7	224.9	245.2	249.6	91.8
Washington	252.9	294.4	321.3	346.0	321.4	88.6

a. Percentages refer to proportion of residential gas customers using gas for heating.

Source: A.G.A. *Gas Househeating Survey*. Data represent average number of customers developed from number of year-end customers as shown in survey.

TABLE 6-6
GAS UTILITY INDUSTRY HOUSEHEATING CUSTOMERS AND HEATING SATURATIONS[a] BY CENSUS DIVISION, 1960–1986 YEARLY AVERAGES[b]

(Thousands)

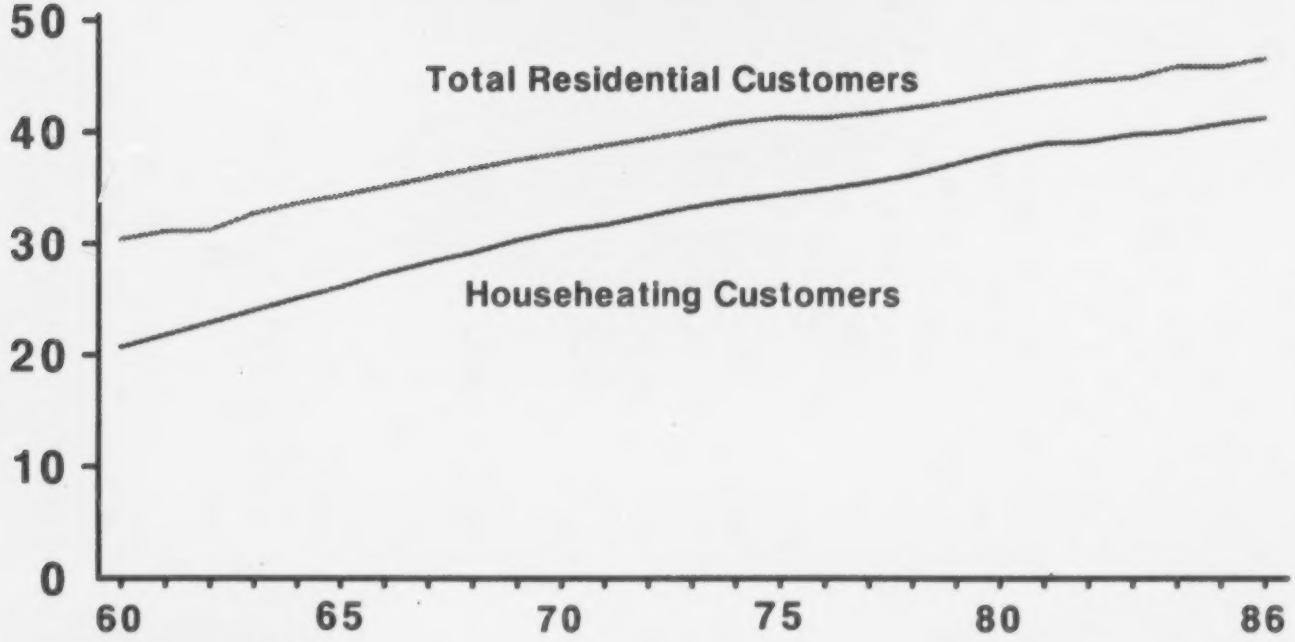
Census Division	1960		1965		1970		1975	
	Customers	Percent	Customers	Percent	Customers	Percent	Customers	Percent
United States	**20,739**	**68.2**	**26,297**	**76.1**	**31,289**	**81.9**	**36,372**	**85.1**
New England	386	25.3	583	36.8	779	48.6	857	54.8
Middle Atlantic	2,475	35.1	3,212	43.2	3,827	50.3	4,128	54.1
East North Central	4,369	64.3	6,091	77.6	7,528	85.6	8,432	89.4
West North Central	1,999	82.6	2,485	88.6	2,916	92.2	3,261	94.5
South Atlantic	1,533	66.7	2,073	74.9	2,599	90.9	2,970	84.2
East South Central	1,161	87.4	1,422	92.4	1,695	96.4	1,868	96.5
West South Central	3,457	99.7	3,900	99.5	4,278	99.0	4,496	97.1
Mountain	1,081	95.5	1,366	96.4	1,646	97.3	2,040	98.0
Pacific	4,278	97.3	5,165	97.3	5,941	98.3	6,320	94.6

Census Division	1980		1984		1985		1986	
	Customers	Percent	Customers	Percent	Customers	Percent	Customers	Percent
United States	**38,163**	**87.0**	**40,037**	**88.3**	**40,781**	**88.0**	**41,347**	**88.0**
New England	1,009	63.1	1,113	67.1	1,130	67.6	1,194	67.6
Middle Atlantic	4,515	60.0	4,910	63.9	5,011	64.8	5,017	64.2
East North Central	9,166	92.1	9,584	94.2	9,671	94.4	9,817	94.7
West North Central	3,590	96.3	3,720	95.3	3,753	95.3	3,895	97.7
South Atlantic	3,313	89.4	3,588	90.8	3,626	90.1	3,707	89.9
East South Central	1,965	98.5	2,002	97.8	2,008	97.6	2,022	97.1
West South Central	4,998	99.5	5,107	96.2	4,953	93.4	4,965	92.7
Mountain	2,406	98.2	2,661	99.3	2,649	96.2	2,694	96.2
Pacific	7,201	95.8	7,352	92.2	7,942	97.4	8,037	96.5

a. Percentages refer to proportion of total residential customers, within specified areas, using gas for heating.
b. Excludes data for Alaska prior to 1961.
Source: *A.G.A. Gas Housheating Survey.* Data represent average number of customers developed from number of year-end customers as shown in survey.

CHART 8-2

GAS UTILITY HOUSEHEATING CUSTOMERS (MILLIONS)



REFERENCE: TABLE 8-6

SECTION 9
PRICES

	1986	% Change 86/85*
Gas Utility Industry		
($/MMBtu)		
Total	$ 4.60	− 8.3
Residential	5.65	− 5.1
Commercial	5.03	− 7.5
Industrial	3.34	−18.5
Other	4.02	−16.0
Wellhead ($/Mcf)	1.86	−25.0
City Gate	3.58	− 6.3
Electric	21.80	+ 0.8
Number 2 Fuel Oil	6.02	−22.6

*Percentage change based on unrounded data for both years. Percentage change for wellhead price based on preliminary data for both years.

Prices in this section, unless cited as a source other than A.G.A., were developed using the following methodology. Total revenues for a specific segment and time period are divided by the corresponding total sales for that specific segment and time period. For example, the residential price (average 1986) for the state of New York was obtained by dividing total 1986 residential revenues in New York by the total 1986 residential sales in New York. Likewise, the residential price (average 1986) for the total United States was obtained by dividing total 1986 residential revenues in the United States by the total 1986 residential sales in the United States.

TABLE 9-1
AVERAGE WELLHEAD PRICES OF NATURAL GAS, BY STATE, 1960-1985[a]

(¢/MCF)

Division and State	1960	1965	1970	1975	1980	1984	1985
United States	**14.0¢**	**15.6¢**	**17.1¢**	**44.5¢**	**158.8¢**	**265.5¢**	**251.1¢**
New England	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Middle Atlantic	**31.8**	**26.9**	**28.0**	**68.0**	**210.2**	**334.8**	**319.4**
New Jersey	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New York	30.9	30.8	30.3	74.0	194.9	400.0	337.0
Pennsylvania	31.8	26.7	27.9	67.5	212.7	325.0	315.6
East North Central	**21.0**	**23.1**	**26.4**	**66.6**	**217.6**	**343.3**	**329.2**
Illinois	12.5	11.7	15.7	70.0	190.0	278.0	277.0
Indiana	18.8	23.6	23.7	39.0	135.0	338.1	250.7
Michigan	21.4	25.1	26.7	63.4	235.5	375.9	360.0
Ohio	23.5	23.6	27.1	70.6	197.7	318.6	307.5
Wisconsin	0.0	0.0	0.0	0.0	0.0	0.0	0.0
West North Central	**11.8**	**13.4**	**14.1**	**17.5**	**79.5**	**160.0**	**135.9**
Iowa	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kansas	11.7	13.3	14.0	17.2	77.2	148.8	127.0
Minnesota	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Missouri	25.0	24.5	24.5	34.0	0.0	375.0	350.0
Nebraska	17.5	14.6	17.1	54.1	82.9	224.0	301.1
North Dakota	11.4	16.0	16.4	23.0	118.8	226.4	189.6
South Dakota	0.0	0.0	0.0	0.0	b	367.0	251.4
South Atlantic	**26.2**	**23.4**	**25.5**	**50.4**	**274.2**	**335.8**	**368.8**
Delaware	0.0	0.0	0.0	0.0	0.0	0.0	0.0
District of Columbia	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Florida	16.2	12.9	0.0	97.3	173.0	257.0	243.3
Georgia	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maryland	26.6	25.2	24.9	27.0	45.6	58.3	59.0
North Carolina	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Carolina	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Virginia	27.1	29.9	30.8	51.5	285.0	300.0	302.0
West Virginia	26.2	23.5	25.4	36.9	300.0	345.0	385.0
East South Central	**20.5**	**19.3**	**20.7**	**59.3**	**223.2**	**321.8**	**316.0**
Alabama	7.3	12.7	13.9	87.0	318.6	373.5	371.1
Kentucky	24.4	23.6	24.6	54.0	89.3[c]	170.0	238.6
Mississippi	18.8	17.3	18.4	49.6	231.7	346.8	316.5
Tennessee	17.5	19.0	19.9	43.0	176.0	380.0	248.0
West South Central	**13.1**	**14.6**	**16.7**	**45.6**	**156.9**	**260.3**	**248.0**
Arkansas	11.9	15.6	16.3	34.7	69.6	254.4	255.0
Louisiana	17.1	18.2	19.3	42.3	160.7[c]	273.2	266.4
Oklahoma	11.9	13.8	15.6	32.0	150.7	271.8	247.3
Texas	11.3	12.9	14.4	51.9	156.5[d]	244.5[d]	232.9
Mountain	**11.2**	**12.1**	**14.3**	**38.2**	**172.6**	**301.1**	**278.6**
Arizona	0.0	12.1	17.1	28.0	b	291.1	b
Colorado	11.9	12.9	14.7	48.0	147.0	343.4	289.9
Idaho	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Montana	7.1	8.2	10.3	43.3	145.4	246.0	239.0
Nevada	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New Mexico	10.7	11.8	14.3	40.5	175.8	271.5	261.8
Utah	18.0	12.5	15.1	48.0	111.7	408.2	351.5
Wyoming	12.0	13.5	14.7	33.7	192.0	331.7	300.6
Pacific	**26.7**	**30.8**	**31.0**	**56.7**	**210.7**	**264.0**	**232.5**
Alaska	12.2	24.8	24.6	30.2	73.2	72.9	73.5
California	26.7	30.9	32.1	70.0	217.0	379.9	336.5
Hawaii	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oregon	0.0	0.0	0.0	0.0	240.0	278.1	240.2
Washington	0.0	0.0	0.0	0.0	0.0	0.0	0.0

a. Reflects price at first point of transfer, representing sales made by producers. The 1986 U.S. average wellhead price of natural gas is estimated to be 187.0¢.
b. Not available.
c. Value data is for the period beginning June 1, 1980 and ending May 31, 1981.
d. Weighted average value obtained from separate onshore and OCS average value calculations.
Source: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1985.

TABLE 9-2
GAS UTILITY INDUSTRY AVERAGE PRICES BY CLASS OF SERVICE, 1960-1986[a]

($/MMBtu)

Year	Total	Residential	Commercial	Industrial	Other
1960	$0.60	$1.00	$0.79	$0.33	$0.33
1961	0.62	1.02	0.80	0.35	0.34
1962	0.63	1.02	0.80	0.35	0.34
1963	0.62	1.02	0.80	0.35	0.35
1964	0.62	1.01	0.78	0.35	0.36
1965	0.62	1.01	0.78	0.35	0.36
1966	0.61	1.00	0.78	0.35	0.36
1967	0.61	1.00	0.78	0.35	0.36
1968	0.61	1.00	0.77	0.35	0.36
1969	0.62	1.01	0.78	0.36	0.39
1970	0.64	1.06	0.81	0.38	0.41
1971	0.68	1.12	0.85	0.41	0.38
1972	0.73	1.19	0.91	0.45	0.41
1973	0.79	1.25	0.95	0.50	0.44
1974	0.95	1.42	1.11	0.66	0.60
1975	1.29	1.69	1.38	0.99	0.94
1976	1.60	1.98	1.68	1.31	1.36
1977	1.97	2.33	2.07	1.69	1.74
1978	2.18	2.53	2.28	1.90	1.79
1979	2.52	2.92	2.66	2.23	1.94
1980	3.13	3.61	3.34	2.79	2.67
1981	3.65	4.16	3.91	3.29	3.46
1982	4.46	4.97	4.72	4.00	4.30
1983	5.12	5.88	5.51	4.41	4.92
1984	5.13	5.94	5.51	4.36	4.87
1985	5.02	5.95	5.44	4.10	4.79
1986	4.60	5.65	5.03	3.34	4.02

a. Excludes data for Alaska prior to 1961.

TABLE 9-3
GAS UTILITY INDUSTRY AVERAGE PRICES, BY STATE, 1960-1986[a]

($/MMBtu)

Division and State	1960	1965	1970	1975	1980	1985	1986
United States	**$0.60**	**$0.62**	**$0.64**	**$1.29**	**$ 3.13**	**$ 5.02**	**$ 4.60**
New England	**1.77**	**1.60**	**1.60**	**2.87**	**4.96**	**6.57**	**6.52**
Connecticut	1.66	1.51	1.60	2.93	4.99	7.28	6.96
Maine	2.78	2.96	2.23	3.04	5.15	7.44	7.06
Massachusetts	1.82	1.63	1.64	2.91	4.96	6.29	6.32
New Hampshire	1.71	1.71	1.54	2.21	4.25	6.70	6.33
Rhode Island	1.58	1.46	1.36	2.82	5.00	6.78	6.91
Vermont	3.49	2.93	2.22	2.06	5.66	5.71	5.14
Middle Atlantic	**1.07**	**1.04**	**1.06**	**1.97**	**3.98**	**6.31**	**6.09**
New Jersey	1.53	1.38	1.26	2.31	4.36	6.41	6.04
New York	1.29	1.20	1.21	2.14	4.43	6.57	6.51
Pennsylvania	0.81	0.81	0.87	1.68	3.45	5.94	5.63
East North Central	**0.74**	**0.73**	**0.74**	**1.34**	**3.17**	**5.27**	**4.92**
Illinois	0.77	0.74	0.73	1.35	3.26	5.05	4.54
Indiana	0.66	0.63	0.71	1.16	2.82	4.72	4.67
Michigan	0.81	0.80	0.78	1.43	3.06	5.66	5.19
Ohio	0.68	0.70	0.73	1.35	3.24	5.47	5.25
Wisconsin	1.02	0.82	0.80	1.31	3.42	5.36	5.18
West North Central	**0.52**	**0.53**	**0.56**	**1.00**	**2.68**	**4.61**	**4.21**
Iowa	0.61	0.62	0.62	1.04	2.81	4.61	4.20
Kansas	0.33	0.36	0.39	0.69	2.24	3.77	3.45
Minnesota	0.71	0.68	0.67	1.19	2.81	5.09	4.55
Missouri	0.56	0.56	0.54	1.18	3.04	4.98	4.56
Nebraska	0.52	0.51	0.51	0.90	2.34	4.33	4.01
North Dakota	0.67	0.68	0.82	1.26	3.57	5.28	4.93
South Dakota	0.58	0.65	0.71	1.05	2.81	5.07	4.57
South Atlantic	**0.73**	**0.72**	**0.72**	**1.39**	**3.28**	**5.29**	**4.75**
Delaware	1.14	0.96	0.93	1.73	3.46	5.53	5.18
District of Columbia	1.45	1.36	1.28	2.21	4.38	7.35	6.84
Florida	0.52	0.51	0.55	1.15	2.63	3.91	2.92
Georgia	0.55	0.61	0.57	1.12	3.17	5.31	5.15
Maryland	1.32	1.17	1.13	1.97	3.87	6.59	6.16
North Carolina	0.74	0.74	0.70	1.58	3.46	5.35	4.67
South Carolina	0.57	0.58	0.62	1.10	3.16	5.08	4.52
Virginia	1.05	0.98	0.95	1.78	3.58	5.93	5.36
West Virginia	0.60	0.59	0.64	1.24	3.27	5.65	5.55
East South Central	**0.52**	**0.50**	**0.51**	**1.03**	**2.85**	**4.58**	**4.38**
Alabama	0.52	0.51	0.52	1.04	3.11	4.81	4.63
Kentucky	0.63	0.64	0.67	1.11	2.90	4.90	4.56
Mississippi	0.41	0.39	0.38	0.95	2.71	3.93	4.01
Tennessee	0.54	0.50	0.53	1.00	2.69	4.51	4.24
West South Central	**0.29**	**0.32**	**0.35**	**0.99**	**2.53**	**3.89**	**3.36**
Arkansas	0.33	0.36	0.37	0.80	1.97	3.92	3.68
Louisiana	0.26	0.28	0.30	0.85	2.36	3.92	3.77
Oklahoma	0.35	0.40	0.46	0.79	2.05	3.73	3.94
Texas	0.28	0.31	0.35	1.10	2.72	3.91	3.23
Mountain	**0.43**	**0.46**	**0.49**	**0.99**	**2.84**	**4.66**	**4.47**
Arizona	0.47	0.52	0.57	1.19	2.82	4.81	4.74
Colorado	0.43	0.45	0.48	0.90	2.95	4.74	4.60
Idaho	0.53	0.57	0.67	1.48	4.03	5.19	5.10
Montana	0.43	0.47	0.54	1.03	3.03	4.64	4.17
Nevada	0.62	0.59	0.58	1.30	3.17	5.46	5.00
New Mexico	0.34	0.41	0.42	0.88	2.66	4.70	4.48
Utah	0.44	0.43	0.46	0.85	2.34	4.00	3.93
Wyoming	0.36	0.38	0.34	0.70	2.45	4.28	4.19
Pacific	**0.59**	**0.57**	**0.58**	**1.31**	**3.65**	**5.08**	**4.23**
Alaska	b	0.88	0.70	0.81	1.20	2.24	2.53
California	0.59	0.55	0.56	1.26	3.57	5.09	4.18
Hawaii	3.13	3.03	2.76	6.78	13.01	14.20	12.04
Oregon	0.78	0.71	0.74	1.80	4.64	5.61	5.06
Washington	0.59	0.60	0.65	1.55	4.33	5.38	4.71

a. Excludes sales for resale and revenues from sales for resale.
b. Not available.

TABLE 9-4
GAS UTILITY INDUSTRY RESALE PRICES, BY STATE, 1970-1986[a]

($/MMBtu)

Division and State	1970	1975	1980	1983	1984	1985	1986
United States	**$0.35**	**$0.80**	**$2.41**	**$4.04**	**$3.89**	**$3.82**	**$3.58**
New England	**0.62**	**1.41**	**2.84**	**4.35**	**3.87**	**4.10**	**3.50**
Connecticut	0.63	1.51	2.91	4.39	3.87	4.11	3.56
Maine	b	b	b	b	b	b	b
Massachusetts	0.61	1.35	2.81	4.34	3.87	4.09	3.51
New Hampshire	0.62	0.99	2.59	4.76	3.99	4.38	3.53
Rhode Island	0.59	1.59	2.94	4.24	3.83	4.03	3.36
Vermont	b	0.67	b	b	b	b	b
Middle Atlantic	**0.43**	**0.93**	**2.49**	**4.05**	**3.88**	**3.95**	**3.65**
New Jersey	0.44	0.99	2.45	3.66	3.67	3.71	3.23
New York	0.46	0.93	2.59	4.13	4.00	4.02	3.97
Pennsylvania	0.41	0.90	2.45	4.24	3.91	4.04	3.69
East North Central	**0.37**	**0.79**	**2.41**	**4.07**	**3.92**	**3.91**	**3.99**
Illinois	0.31	0.68	2.12	3.53	3.47	3.51	3.55
Indiana	0.37	0.72	2.14	4.23	4.03	4.02	3.67
Michigan	0.40	0.87	2.93	4.42	4.17	4.46	6.21
Ohio	0.39	0.84	2.39	4.44	4.28	4.13	4.27
Wisconsin	0.41	0.95	3.07	4.46	4.25	4.11	3.98
West North Central	**0.34**	**0.70**	**2.11**	**4.11**	**3.87**	**3.64**	**3.26**
Iowa	0.39	0.78	2.48	3.94	3.95	3.82	3.66
Kansas	0.26	0.53	1.78	3.77	3.37	2.98	2.65
Minnesota	0.37	0.75	2.32	4.37	4.23	3.93	3.37
Missouri	0.32	0.69	1.86	4.12	3.73	3.43	3.03
Nebraska	0.34	0.69	2.02	4.28	4.00	4.00	3.58
North Dakota	0.42	1.40	4.55	4.38	4.41	4.16	3.86
South Dakota	0.37	0.72	2.11	4.35	4.32	4.07	3.62
South Atlantic	**0.39**	**0.80**	**2.44**	**4.30**	**4.18**	**4.35**	**3.94**
Delaware	0.62	0.98	2.41	4.43	4.32	4.59	4.17
District of Columbia	b	b	b	b	b	b	b
Florida	0.38	0.66	2.31	3.38	3.30	3.31	2.59
Georgia	0.37	0.69	2.30	4.00	4.07	4.24	4.11
Maryland	0.45	1.05	2.61	4.85	4.75	4.40	4.18
North Carolina	0.24	0.81	2.66	4.16	4.21	4.17	4.18
South Carolina	0.45	0.68	2.32	4.04	4.07	4.11	3.92
Virginia	0.42	0.98	2.60	4.63	4.46	4.65	3.97
West Virginia	0.36	0.76	2.35	4.63	4.26	5.97	4.92
East South Central	**0.32**	**0.64**	**2.15**	**3.93**	**3.60**	**3.87**	**3.30**
Alabama	0.33	0.64	2.25	3.89	3.88	3.99	3.87
Kentucky	0.37	0.71	2.23	4.19	3.86	3.86	3.73
Mississippi	0.27	0.62	2.19	4.08	3.68	3.86	3.91
Tennessee	0.29	0.61	2.04	3.75	3.33	3.80	3.16
West South Central	**0.21**	**0.63**	**2.15**	**3.70**	**3.67**	**3.46**	**3.21**
Arkansas	0.30	0.58	2.17	3.31	3.02	2.91	2.66
Louisiana	0.22	0.62	2.09	3.78	3.71	3.60	4.19
Oklahoma	0.20	0.62	2.05	3.57	3.41	3.10	2.66
Texas	0.20	0.64	2.21	3.68	3.71	3.45	2.90
Mountain	**0.32**	**0.71**	**2.37**	**3.88**	**3.86**	**3.54**	**3.27**
Arizona	0.33	0.70	2.26	3.84	3.83	3.47	3.10
Colorado	0.25	0.58	2.51	4.14	3.85	3.63	3.41
Idaho	0.34	1.14	3.43	4.01	3.93	3.68	3.08
Montana	0.46	0.95	3.42	4.47	4.39	4.12	3.91
Nevada	0.51	1.28	3.64	5.38	5.20	4.96	4.10
New Mexico	0.20	0.48	1.91	3.07	3.78	2.98	2.95
Utah	0.20	0.42	1.83	4.71	4.49	3.66	3.53
Wyoming	0.23	0.97	3.03	3.97	4.28	4.35	4.78
Pacific	**0.34**	**1.10**	**3.39**	**4.33**	**4.14**	**3.56**	**2.83**
Alaska	b	b	0.83	b	b	b	b
California	0.37	0.85	2.75	4.24	4.10	3.95	3.20
Hawaii	b	b	b	b	b	b	b
Oregon	0.30	1.27	4.29	4.56	4.32	3.39	2.60
Washington	0.32	1.11	3.40	4.01	3.90	3.60	3.09

a. Resale prices approximate city-gate prices.
b. No sales reported.

TABLE 9-5
AVERAGE GAS PRICES OF WELLHEAD, CITY GATE, AND END-USER LEVEL
1960-1986

Year	Wellhead ($/Mcf[b])	City Gate[a] ($/MMBtu[b])	Cost to the Ultimate Customer ($/MMBtu[b])
1960	$0.140	$0.342	$0.605
1961	0.151	0.357	0.618
1962	0.155	0.360	0.630
1963	0.158	0.351	0.625
1964	0.154	0.342	0.615
1965	0.156	0.339	0.618
1966	0.157	0.333	0.612
1967	0.160	0.330	0.612
1968	0.164	0.328	0.607
1969	0.167	0.334	0.616
1970	0.171	0.354	0.641
1971	0.182	0.389	0.681
1972	0.186	0.429	0.730
1973	0.216	0.463	0.788
1974	0.304	0.573	0.953
1975	0.445	0.798	1.285
1976	0.580	0.984	1.599
1977	0.790	1.308	1.974
1978	0.905	1.466	2.184
1979	1.178	1.812	2.522
1980	1.588	2.414	3.134
1981	1.982	2.885	3.650
1982	2.457	3.598	4.456
1983	2.593	4.041	5.121
1984	2.655	3.890	5.128
1985[R]	2.511	3.821	5.017
1986	1.860	3.579	4.601

a. Resale prices approximate city-gate prices. See Table 9-4.
b. Mcf and MMBtu prices are roughly comparable. On a MMBtu basis, the wellhead price would be slightly less.
R-Revised.
Source: For wellhead price, *Monthly Energy Review.*

TABLE 9-6
GAS UTILITY INDUSTRY AVERAGE PRICES, BY STATE AND CLASS OF SERVICE, 1986

($/MMBtu)

Division and State	Total	Class of Service				
		Residential	Commercial	Industrial	Electric Generation	Other
United States	**$4.60**	**$5.65**	**$5.03**	**$3.65**	**$2.73**	**$4.02**
New England	**6.52**	**7.87**	**6.49**	**4.65**	**2.36**	**5.43**
Connecticut	6.96	8.61	6.26	4.53	b	7.64
Maine	7.06	8.26	7.26	5.79	a	a
Massachusetts	6.32	7.22	6.53	4.70	2.32	5.30
New Hampshire	6.33	6.86	6.24	4.47	a	6.24
Rhode Island	6.91	7.53	7.16	5.23	3.34	5.21
Vermont	5.14	6.51	6.15	3.55	a	b
Middle Atlantic	**6.09**	**6.90**	**5.94**	**4.40**	**3.03**	**5.45**
New Jersey	6.04	7.02	6.03	4.19	3.12	5.19
New York	6.51	7.36	6.10	4.70	2.91	5.38
Pennsylvania	5.63	6.22	5.68	4.29	4.73	5.68
East North Central	**4.92**	**5.34**	**4.80**	**4.11**	**4.36**	**4.60**
Illinois	4.54	4.88	4.37	3.98	4.62	4.59
Indiana	4.67	5.39	4.85	3.76	3.82	4.47
Michigan	5.19	5.46	5.04	4.48	4.31	5.51
Ohio	5.25	5.53	5.12	4.47	4.47	4.64
Wisconsin	5.18	6.13	4.96	4.16	3.67	3.78
West North Central	**4.21**	**4.85**	**4.28**	**3.36**	**2.77**	**2.97**
Iowa	4.20	5.02	4.35	3.32	3.54	4.09
Kansas	3.45	3.87	3.30	3.29	2.45	2.36
Minnesota	4.55	5.20	4.86	3.48	3.31	4.48
Missouri	4.56	5.05	4.47	3.38	2.76	3.21
Nebraska	4.01	4.53	4.00	3.20	3.26	3.18
North Dakota	4.93	5.28	4.72	4.17	b	b
South Dakota	4.57	5.14	4.50	3.53	b	2.34
South Atlantic	**4.75**	**6.51**	**5.40**	**3.77**	**2.12**	**4.15**
Delaware	5.18	6.85	6.17	3.97	2.50	b
District of Columbia	6.84	7.55	6.31	a	a	a
Florida	2.92	7.08	4.56	2.89	2.10	3.30
Georgia	5.15	6.46	5.37	3.88	2.07	5.35
Maryland	6.16	6.66	5.74	5.40	2.54	b
North Carolina	4.67	6.40	5.39	3.64	2.65	5.52
South Carolina	4.52	6.44	5.49	3.70	3.47	5.02
Virginia	5.36	6.47	5.41	3.89	2.84	5.13
West Virginia	5.55	5.97	5.32	4.51	3.62	6.05
East South Central	**4.38**	**5.31**	**4.76**	**3.59**	**2.74**	**4.35**
Alabama	4.63	6.28	5.12	3.54	3.53	4.62
Kentucky	4.56	4.83	4.66	3.87	a	4.24
Mississippi	4.01	5.48	5.08	3.41	2.73	4.39
Tennessee	4.24	4.83	4.50	3.66	b	4.50
West South Central	**3.36**	**5.03**	**4.25**	**2.87**	**2.71**	**3.41**
Arkansas	3.68	4.27	3.83	3.20	2.80	3.57
Louisiana	3.77	5.50	5.10	2.68	2.89	2.72
Oklahoma	3.94	4.79	4.33	2.59	3.53	2.88
Texas	3.23	5.12	4.16	2.90	2.70	3.60
Mountain	**4.47**	**5.04**	**4.46**	**3.46**	**3.16**	**3.71**
Arizona	4.74	6.19	4.49	3.80	2.81	3.80
Colorado	4.60	4.99	4.39	4.03	3.08	3.98
Idaho	5.10	6.00	4.90	4.03	a	a
Montana	4.17	4.21	4.28	3.94	b	3.85
Nevada	5.00	5.89	4.86	3.69	3.86	4.14
New Mexico	4.48	5.30	4.36	3.27	3.42	3.60
Utah	3.93	4.38	4.29	2.85	2.39	b
Wyoming	4.19	4.86	4.63	2.96	2.88	b
Pacific	**4.23**	**5.08**	**5.81**	**3.78**	**2.88**	**4.52**
Alaska	2.53	3.27	2.66	a	1.97	a
California	4.18	4.97	5.72	3.77	2.91	4.58
Hawaii	12.04	13.80	10.30	12.47	a	a
Oregon	5.06	6.49	5.51	3.74	a	a
Washington	4.71	5.91	5.16	3.65	a	4.08

a. No sales reported.
b. Less than 0.05 trillion Btu in sales.

TABLE 9-7
AVERAGE RESIDENTIAL GAS PRICES, BY STATE, 1960-1986

($/MMBtu)

Division and State	1960	1965	1970	1975	1980	1985[R]	1986
United States	**$1.00**	**$1.01**	**$1.06**	**$1.69**	**$ 3.61**	**$ 5.95**	**$ 5.68**
New England	**2.08**	**1.89**	**1.88**	**3.22**	**5.48**	**7.90**	**7.87**
Connecticut	2.02	1.83	1.93	3.27	5.73	8.89	8.61
Maine	3.01	3.33	2.89	4.25	6.35	8.80	8.26
Massachusetts	2.11	1.91	1.87	3.20	5.41	7.61	7.22
New Hampshire	1.99	1.85	1.77	2.46	4.55	7.26	6.86
Rhode Island	1.92	1.80	1.76	3.16	5.48	7.80	7.53
Vermont	3.40	3.44	1.78	2.80	6.43	6.53	6.51
Middle Atlantic	**1.32**	**1.31**	**1.34**	**2.26**	**4.45**	**7.17**	**6.90**
New Jersey	1.79	1.69	1.62	2.59	4.89	7.28	7.02
New York	1.42	1.35	1.38	2.43	4.86	7.62	7.36
Pennsylvania	1.08	1.10	1.17	1.90	3.76	6.52	6.22
East North Central	**0.93**	**0.98**	**0.99**	**1.56**	**3.37**	**5.74**	**5.34**
Illinois	1.11	1.02	1.02	1.58	3.46	5.37	4.88
Indiana	0.98	0.96	1.05	1.45	3.12	5.49	5.39
Michigan	0.94	0.97	1.00	1.60	3.15	6.03	5.46
Ohio	0.76	0.83	0.89	1.51	3.45	5.82	5.53
Wisconsin	1.27	1.14	1.21	1.71	3.80	6.39	6.13
West North Central	**0.83**	**0.85**	**0.92**	**1.37**	**3.08**	**5.24**	**4.85**
Iowa	0.93	0.92	0.96	1.41	3.20	5.32	5.02
Kansas	0.57	0.60	0.69	0.97	2.37	4.12	3.87
Minnesota	1.11	1.05	1.08	1.59	3.24	5.75	5.20
Missouri	0.79	0.84	0.93	1.45	3.37	5.47	5.05
Nebraska	0.85	0.83	0.86	1.26	2.71	4.97	4.53
North Dakota	0.84	0.86	1.05	1.50	3.83	5.59	5.2[illegible]
South Dakota	0.93	0.95	1.04	1.40	3.11	5.62	5.14
South Atlantic	**1.23**	**1.23**	**1.23**	**2.02**	**4.18**	**6.71**	**6.51**
Delaware	1.72	1.59	1.50	2.34	4.15	6.80	6.85
District of Columbia	1.53	1.47	1.44	2.40	4.56	7.96	7.55
Florida	2.76	2.51	1.81	2.78	4.85	7.33	7.08
Georgia	0.97	1.03	0.98	1.75	4.06	6.44	6.46
Maryland	1.48	1.39	1.43	2.31	4.40	7.14	6.66
North Carolina	1.41	1.38	1.29	2.02	4.00	6.41	6.40
South Carolina	1.43	1.39	1.34	2.08	4.13	6.53	6.44
Virginia	1.55	1.45	1.42	2.29	4.24	7.07	6.47
West Virginia	0.79	0.80	0.87	1.47	3.62	5.97	5.97
East South Central	**0.90**	**0.91**	**0.92**	**1.43**	**3.37**	**5.47**	**5.31**
Alabama	1.06	1.11	1.10	1.72	4.10	6.24	6.28
Kentucky	0.78	0.80	0.84	1.30	3.08	5.27	4.83
Mississippi	0.88	0.87	0.88	1.41	3.39	5.34	5.48
Tennessee	0.94	0.90	0.89	1.33	2.94	4.96	4.83
West South Central	**0.70**	**0.77**	**0.88**	**1.35**	**3.00**	**5.23**	**3.83**
Arkansas	0.66	0.75	0.78	1.12	2.36	4.35	4.27
Louisiana	0.64	0.72	0.75	1.32	3.07	5.48	5.50
Oklahoma	0.69	0.75	0.80	1.15	2.38	4.45	4.79
Texas	0.73	0.80	0.92	1.47	3.30	5.59	5.12
Mountain	**0.72**	**0.74**	**0.83**	**1.34**	**3.23**	**5.29**	**5.04**
Arizona	0.97	1.04	1.14	1.83	3.74	6.66	6.19
Colorado	0.67	0.67	0.71	1.16	3.21	5.11	4.99
Idaho	1.26	1.22	1.34	2.25	4.94	6.56	6.00
Montana	0.60	0.63	0.84	1.18	2.88	4.51	4.21
Nevada	1.47	1.30	1.31	1.81	3.97	6.55	5.89
New Mexico	0.74	0.71	0.84	1.37	3.21	5.69	5.30
Utah	0.63	0.64	0.70	1.12	2.68	4.52	4.38
Wyoming	0.59	0.61	0.65	0.99	2.94	4.97	4.86
Pacific	**0.91**	**0.91**	**0.97**	**1.88**	**3.81**	**5.56**	**5.05**
Alaska	a	1.48	1.42	1.48	1.73	2.85	3.27
California	0.88	0.87	0.93	1.52	3.38	5.51	4.97
Hawaii	3.65	3.74	3.56	7.97	14.58	17.69	15.80
Oregon	1.56	1.52	1.44	2.41	5.36	6.73	6.49
Washington	1.41	1.32	1.29	2.12	4.91	6.44	5.91

a. Not available.
R–Revised.

TABLE 9-8
AVERAGE ANNUAL RESIDENTIAL GAS BILLS, BY STATE, 1960-1986

($/Customer)

Division and State	1960	1965	1970	1975	1980	1985[R]	1986
United States	**$104**	**$117**	**$137**	**$206**	**$401**	**$585**	**$531**
New England	**103**	**128**	**162**	**274**	**493**	**702**	**694**
Connecticut	109	125	169	285	505	762	790
Maine	88	107	110	165	274	390	381
Massachusetts	106	132	163	276	494	684	662
New Hampshire	102	137	165	234	464	688	684
Rhode Island	91	117	146	266	474	696	691
Vermont	68	80	116	261	661	687	696
Middle Atlantic	**103**	**119**	**144**	**231**	**458**	**679**	**674**
New Jersey	102	124	150	229	439	640	638
New York	90	105	126	217	441	663	662
Pennsylvania	127	142	172	257	501	736	723
East North Central	**128**	**151**	**174**	**257**	**535**	**787**	**712**
Illinois	122	143	169	266	562	792	707
Indiana	101	128	168	220	449	673	639
Michigan	138	168	189	268	545	879	764
Ohio	140	157	172	259	547	766	721
Wisconsin	117	148	175	238	497	744	666
West North Central	**126**	**135**	**154**	**209**	**405**	**615**	**529**
Iowa	138	148	161	215	408	619	551
Kansas	90	93	114	145	301	457	383
Minnesota	161	176	190	255	450	743	633
Missouri	118	127	155	215	449	617	540
Nebraska	136	134	145	195	350	588	484
North Dakota	100	142	179	245	489	696	593
South Dakota	135	150	159	203	365	651	549
South Atlantic	**113**	**118**	**136**	**194**	**386**	**524**	**521**
Delaware	110	136	164	219	388	552	599
District of Columbia	122	129	147	230	472	719	743
Florida	54	68	87	107	194	238	233
Georgia	107	106	122	181	393	526	502
Maryland	125	133	158	225	425	607	609
North Carolina	110	124	144	188	388	491	499
South Carolina	98	105	122	151	319	380	391
Virginia	129	137	157	230	423	596	580
West Virginia	129	128	140	219	473	650	681
East South Central	**106**	**101**	**116**	**153**	**348**	**465**	**440**
Alabama	103	101	118	157	356	460	448
Kentucky	120	116	132	177	401	549	500
Mississippi	86	77	92	122	291	392	379
Tennessee	111	103	113	140	299	424	404
West South Central	**68**	**71**	**89**	**130**	**253**	**392**	**341**
Arkansas	81	85	103	128	226	379	340
Louisiana	56	59	72	108	236	362	343
Oklahoma	79	87	102	138	246	424	405
Texas	67	69	89	135	265	394	325
Mountain	**99**	**104**	**117**	**175**	**336**	**498**	**419**
Arizona	73	80	89	141	221	363	289
Colorado	100	103	111	171	385	509	434
Idaho	127	143	154	249	393	534	457
Montana	106	126	148	203	363	558	449
Nevada	130	134	148	204	347	480	371
New Mexico	99	96	109	173	318	480	418
Utah	127	128	148	201	373	610	535
Wyoming	102	106	117	160	378	610	515
Pacific	**86**	**94**	**103**	**174**	**286**	**420**	**329**
Alaska	a	341	282	328	375	586	598
California	82	92	97	166	272	405	313
Hawaii	92	102	120	232	364	360	310
Oregon	123	138	163	258	428	562	465
Washington	132	152	165	259	469	605	527

a. Not available.
R=Revised.

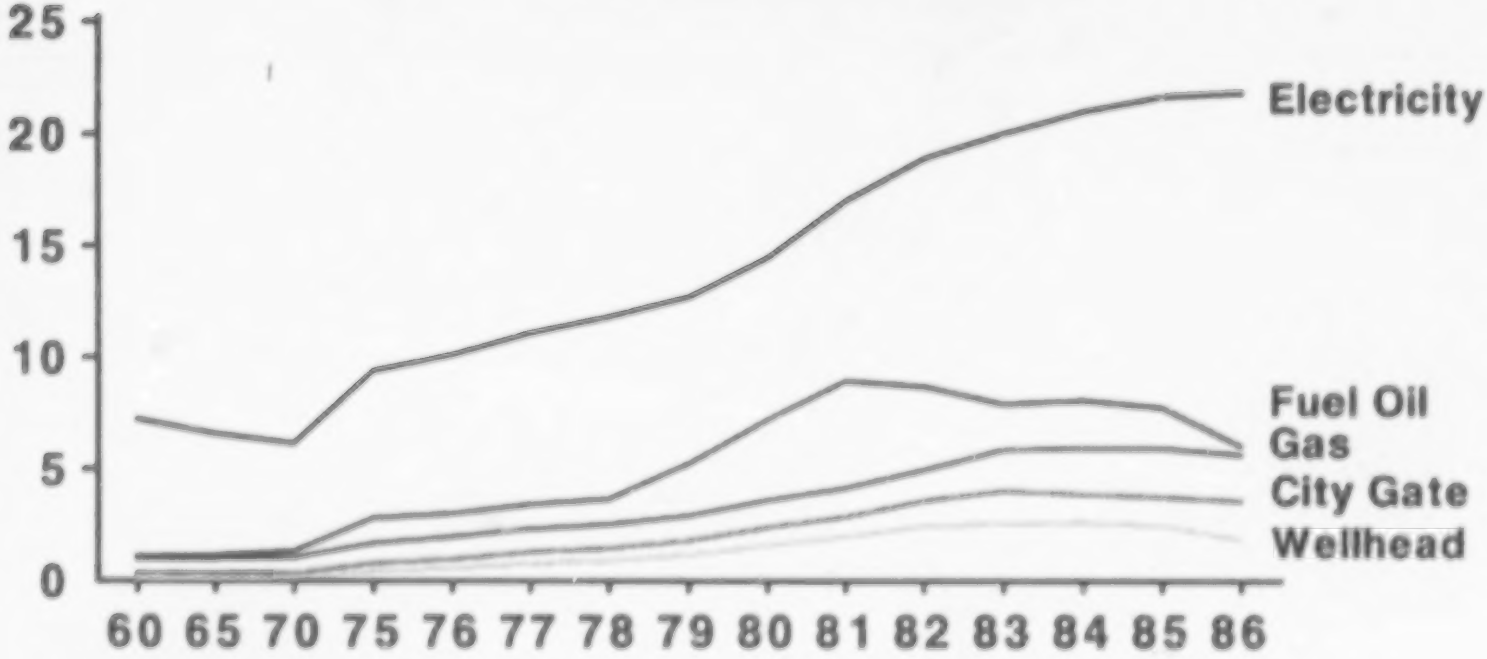
TABLE 9-9
AVERAGE RESIDENTIAL CONSUMPTION AND COSTS
1960-1986[a]

Year	Gas			Electric	Number 2
	Consumption (MMBtu/ Customer)	Annual Bill ($/Customer)	Price ($/MMBtu)	Price ($/MMBtu)	Fuel Oil Price ($/MMBtu)
1960	104.8	$104.46	$1.00	$ 7.24	$1.08
1961	106.7	108.51	1.02	7.18	1.12
1962	110.9	112.98	1.02	7.06	1.13
1963	112.1	113.96	1.02	6.95	1.15
1964	115.3	116.09	1.01	6.77	1.12
1965	116.5	117.34	1.01	6.59	1.15
1966	118.8	119.38	1.00	6.45	1.18
1967	121.5	122.03	1.00	6.36	1.21
1968	124.1	124.48	1.00	6.21	1.25
1969	128.4	130.08	1.01	6.13	1.28
1970	129.2	136.69	1.06	6.15	1.33
1971	129.9	145.28	1.12	6.42	1.41
1972	130.4	154.56	1.19	6.71	1.42
1973	124.5	155.73	1.25	6.98	1.64
1974	119.6	169.82	1.42	8.29	2.60
1975	121.9	206.24	1.69	9.40	2.81
1976	121.3	240.48	1.98	10.11	3.01
1977	118.7	276.87	2.33	11.08	3.42
1978	121.0	307.40	2.53	11.81	3.66
1979	118.6	346.39	2.92	12.69	5.24
1980	111.0	400.84	3.61	14.45	7.21
1981	104.4	434.43	4.16	17.00	8.95
1982	107.1	531.96	4.97	18.90	8.70
1983	99.1	583.00	5.88	20.01	7.92
1984	102.0	605.80	5.94	20.93	8.08
1985[R]	98.3	584.90	5.95	21.69	7.78
1986	94.0	531.25	5.65	21.80	6.02

a. Prices given are for total usage.
R–Revised.
Sources: For electric price, Edison Electric Institute *Statistical Yearbook*. For oil price, Bureau of Labor Statistics.

CHART 9-1

RESIDENTIAL PRICES OF FUELS & ELECTRICITY
(DOLLARS / MILLION BTU)



REFERENCE: TABLES 9-5, 9-9

TABLE 9-10
AVERAGE RESIDENTIAL GAS PRICES
BY CENSUS DIVISION
HEATING SEASON—NOVEMBER THRU MARCH

($/MMBtu)

	1980–81	1981–82	1982–83	1983–84	1984–85	1985–86	1986–87[a]
Total U.S.	$3.84	$4.52	$5.56	$5.71	$5.81	$5.54	$5.16
NE	5.71	7.04	8.39	7.47	7.70	7.41	6.69
MA	4.67	5.42	6.02	6.65	6.87	6.75	6.18
ENC	3.52	4.12	5.12	5.47	5.59	5.27	4.84
WNC	3.46	4.35	5.35	5.27	5.18	4.82	4.19
SA	4.27	5.17	6.12	6.46	6.46	6.35	6.21
ESC	3.57	4.28	5.38	5.22	5.34	5.08	4.89
WSC	3.23	3.97	4.87	5.00	4.99	4.83	4.48
M	3.79	4.48	5.13	5.21	5.20	5.01	4.61
P	3.59	3.91	4.98	5.46	5.68	5.54	4.97

a. Data used for 1987 was based on the *Quarterly Report of Gas Industry Operations.*

TABLE 9-11
AVERAGE GAS CONSUMPTION BY HOUSEHEATING CUSTOMERS
BY CENSUS DIVISION
HEATING SEASON—NOVEMBER THRU MARCH

(MMBtu/Customer)

	1980–81	1981–82	1982–83	1983–84	1984–85	1985–86	1986–87[a]
Total U.S.	81.4	81.8	70.7	78.2	75.3	72.9	70.1
NE	92.5	88.8	75.2	85.2	80.6	84.8	84.2
MA	113.6	111.3	89.8	101.7	95.4	97.2	97.4
ENC	115.1	116.1	92.2	108.7	101.3	103.4	94.3
WNC	87.5	93.4	77.8	89.1	87.4	86.5	71.9
SA	74.1	69.9	60.6	67.5	60.7	61.6	61.5
ESC	71.5	68.7	60.3	70.1	64.2	60.3	60.2
WSC	55.5	54.4	54.9	60.9	54.5	48.6	53.9
M	59.2	59.4	62.8	64.5	63.9	58.7	58.5
P	45.6	48.3	47.4	41.8	50.3	41.3	41.7

a. Data used for 1987 was based on the *Quarterly Report of Gas Industry Operations.*

TABLE 9-12
AVERAGE GAS BILL FOR HOUSEHEATING CUSTOMERS
BY CENSUS DIVISION
HEATING SEASON—NOVEMBER THRU MARCH

($/Customer)

	1980–81	1981–82	1982–83	1983–84	1984–85	1985–86	1986–87[a]
Total U.S.	$313	$370	$393	$447	$437	$404	$362
NE	528	625	631	636	621	628	563
MA	531	603	541	677	656	656	602
ENC	405	478	472	594	567	545	457
WNC	303	406	416	469	453	417	301
SA	316	361	371	436	392	391	382
ESC	255	294	325	366	342	306	294
WSC	179	216	267	304	272	235	241
M	224	266	322	336	332	294	269
P	164	189	236	228	286	208	208

a. Data used for 1987 was based on the *Quarterly Report of Gas Industry Operations.*

TABLE 9-13
GAS UTILITY INDUSTRY AVERAGE PRICES, FOR GAS USED FOR ELECTRIC GENERATION, BY STATE, 1980-1986

($/MMBtu)

Division and State	1980	1981	1982	1983	1984[R]	1985	1986
United States	**$2.65**	**$3.24**	**$4.09**	**$4.20**	**$4.22**	**$3.81**	**$2.73**
New England	**3.50**	**3.64**	**4.20**	**3.93**	**4.01**	**3.54**	**2.36**
Connecticut	a	a	a	a	a	a	b
Maine	a	a	a	a	a	a	a
Massachusetts	3.53	3.74	4.21	3.95	4.02	3.54	2.32
New Hampshire	a	a	a	a	a	a	a
Rhode Island	3.39	3.35	4.09	3.69	3.86	3.57	3.34
Vermont	a	a	a	a	a	a	a
Middle Atlantic	**3.04**	**3.74**	**4.36**	**4.41**	**4.23**	**3.92**	**3.03**
New Jersey	3.15	3.88	4.59	4.38	4.35	4.05	3.12
New York	3.30	3.84	5.42	6.57	4.18	3.86	2.91
Pennsylvania	2.77	3.38	3.58	4.89	5.04	4.66	4.73
East North Central	**2.97**	**3.63**	**4.31**	**4.83**	**4.73**	**4.91**	**4.36**
Illinois	3.20	3.98	4.33	4.98	4.90	5.17	4.62
Indiana	2.68	3.05	3.54	4.28	4.17	4.14	3.82
Michigan	2.83	3.40	4.34	4.65	4.65	4.96	4.31
Ohio	2.83	3.32	4.23	5.05	5.59	4.86	4.47
Wisconsin	2.89	3.43	4.27	4.42	4.17	4.17	3.67
West North Central	**1.90**	**2.25**	**2.83**	**3.47**	**3.36**	**3.18**	**2.77**
Iowa	2.42	3.10	3.71	3.84	3.86	3.82	3.54
Kansas	1.83	2.12	2.64	3.33	3.16	2.89	2.45
Minnesota	2.02	2.62	3.41	3.86	3.94	3.90	3.31
Missouri	2.35	2.77	3.99	4.42	3.81	3.26	2.76
Nebraska	1.84	2.37	3.13	3.30	3.40	3.50	3.26
North Dakota	b	b	b	b	b	b	b
South Dakota	a	a	a	a	b	b	b
South Atlantic	**2.24**	**2.84**	**3.22**	**3.19**	**3.43**	**3.33**	**2.12**
Delaware	a	a	a	a	a	3.99	2.50
District of Columbia	a	a	a	a	a	a	a
Florida	2.21	2.81	3.20	3.16	3.42	3.32	2.10
Georgia	2.58	3.32	3.87	4.06	4.31	4.21	2.07
Maryland	a	4.27	4.22	a	a	b	2.54
North Carolina	3.37	4.55	4.02	4.69	4.76	b	2.65
South Carolina	3.17	4.20	4.22	4.44	a	4.50	3.47
Virginia	a	a	a	a	a	a	2.84
West Virginia	3.14	4.04	3.93	4.47	4.92	4.48	3.62
East South Central	**2.29**	**2.76**	**3.19**	**3.57**	**2.88**	**2.81**	**2.74**
Alabama	b	b	b	b	3.69	4.05	3.53
Kentucky	a	a	a	a	a	a	a
Mississippi	2.29	2.76	3.19	3.57	2.88	2.81	2.73
Tennessee	2.33	2.84	b	a	3.48	b	b
West South Central	**2.37**	**2.96**	**3.83**	**3.93**	**3.88**	**3.48**	**2.71**
Arkansas	1.73	2.14	3.18	3.52	3.69	3.61	2.80
Louisiana	2.39	3.03	3.53	3.78	3.66	3.57	2.89
Oklahoma	1.82	1.94	2.80	3.16	2.79	2.75	3.53
Texas	2.48	3.13	3.97	3.98	3.92	3.49	2.70
Mountain	**2.44**	**2.93**	**3.63**	**3.84**	**4.02**	**3.63**	**3.16**
Arizona	2.26	2.92	3.63	3.38	4.04	3.59	2.81
Colorado	2.63	3.28	3.80	4.28	3.89	3.62	3.08
Idaho	a	a	a	a	a	a	a
Montana	1.93	b	b	b	5.41	0.76	b
Nevada	2.62	3.08	4.16	4.84	4.54	4.21	3.86
New Mexico	2.30	2.65	3.28	3.53	3.68	3.41	3.42
Utah	a	a	a	a	a	3.83	2.39
Wyoming	a	a	a	a	a	4.60	2.88
Pacific	**3.45**	**3.91**	**4.95**	**4.98**	**4.99**	**4.40**	**2.88**
Alaska	0.88	1.19	.95	1.43	1.57	1.69	1.97
California	3.53	3.96	5.07	5.11	5.09	4.48	2.91
Hawaii	a	a	a	a	a	a	a
Oregon	4.80	5.54	b	b	b	a	a
Washington	a	4.77	7.54	b	a	b	a

a. No sales reported.
b. Less than 0.05 trillion Btu in sales.
R–Revised.

TABLE 9-15
INDEXES OF WHOLESALE PRICES OF GAS, YEARLY AVERAGES, 1960-1986 AND MONTHLY AVERAGES, 1986

(1967 = 100)

Year and Month	All Gas	Utility Gas	Liquefied Petroleum Gas
1960	87.2	90.5	73.2
1961	88.8	94.9	58.7
1962	89.2	96.8	52.2
1963	91.8	97.5	69.6
1964	90.7	97.7	56.5
1965	92.8	97.8	69.2
1966	96.7	98.6	89.1
1967	100.0	100.0	100.0
1968	91.3	101.9	60.2
1969	93.1	103.0	63.7
1970	103.0	105.6	96.3
1971	108.0	112.2	93.7
1972	114.1	121.0	93.7
1973	126.7	131.3	113.2
1974	162.2	154.6	183.5
1975	216.7	215.3	221.0
1976	286.8	291.8	287.7
1977	387.8	412.3	367.9
1978	428.6	488.2	343.5
1979	544.4	637.6	406.9
1980	760.4	846.6	642.2
1981	939.8	1,099.1	703.6
1982	1,060.8	1,338.1	628.0
1983	1,147.9	1,426.9	714.5
1984	1,109.0	1,419.6	622.4
1985	1,047.0	1,376.4	541.9
1986	882.1	1,199.2	382.5
January	1,034.3	1,304.9	630.8
February	997.2	1,274.9	577.2
March	999.2	1,344.3	456.1
April	940.4	1,294.5	375.8
May	920.5	1,283.8	337.2
June	903.8	1,240.5	367.7
July	842.2	1,148.7	353.7
August	809.9	1,132.4	297.9
September	804.0	1,129.3	290.9
October	803.1	1,114.2	311.7
November	789.0	1,098.8	296.9
December	742.1	1,023.7	294.2

Source: Bureau of Labor Statistics, *Producer Prices and Price Index*, 1986. Represents unofficial estimates of U.S. Bureau of Labor Statistics, based on wellhead prices for natural gas by 20 major pipeline companies, and L.P.G. price quotations from 2 major producers.

SECTION 10
ENERGY CONSUMPTION

	1986	% Change 86/85
Average Annual Consumption		
(Millions of Btu per Customer)		
Total	219.4	−13.1
Residential	94.0	− 4.4
Commercial	575.0	− 6.2
Industrial	24,448.0	−22.3
Other	3,215.2	+17.3

TABLE 10-1
ANNUAL CONSUMPTION OF ENERGY RESOURCES IN THE UNITED STATES, BY MAJOR SOURCES, BY CONSUMING SECTORS, 1979–1986[a]

(Trillions of Btu)

Consuming Sectors	Coal and Coke	Natural gas, dry[b]	Petroleum[c]	Hydropower[d]	Nuclear power[d]	Other[e]	Total gross energy inputs[f]	Utility electricity purchased[g]	Total Sector energy inputs
Household and commercial:									
1979	187	7,891	3,448	—	—	—	11,526	4,184	15,710
1980	165	7,539	3,035	—	—	—	10,719	4,355	15,074
1981	168	7,242	2,634	—	—	—	10,044	4,497	14,541
1982	188	7,433	2,449	—	—	—	10,070	4,566	14,636
1983	196	7,025	2,499	—	—	—	9,720	4,680	14,400
1984	212	7,292	2,582	—	—	—	10,086	4,894	14,980
1985[R]	179	7,085	2,573	—	—	—	9,837	5,054	14,891
1986[P]	179	6,968	2,573	—	—	—	9,720	5,306	15,026
Industrial:									
1979	3,656[h]	8,549	10,576	34	—	—	22,815	2,873	25,688
1980	3,120[h]	8,394	9,524	33	—	—	21,071	2,781	23,852
1981	3,141[h]	8,257	8,295	33	—	—	19,726	2,817	22,543
1982	2,530[h]	7,116	7,798	33	—	—	17,477	2,542	20,019
1983	2,474[h]	6,821	7,421	33	—	—	16,749	2,648	19,397
1984	2,831[h]	7,448	7,889	33	—	—	18,201	2,868	21,069
1985[R]	2,744[h]	7,087	7,702	33	—	—	17,566	2,813	20,379
1986[P]	2,606[h]	6,366	7,704	33	—	—	16,709	2,791	19,500
Transportation:[i]									
1979	—	612	19,817	—	—	—	20,429	10	20,439
1980	—	648	19,009	—	—	—	19,657	11	19,668
1981	—	657	18,800	—	—	—	19,457	11	19,468
1982	—	613	18,417	—	—	—	19,030	11	19,041
1983	—	504	18,591	—	—	—	19,095	11	19,106
1984	—	545	19,295	—	—	—	19,840	11	19,851
1985[R]	—	520	19,558	—	—	—	20,078	13	20,091
1986[P]	—	495	20,158	—	—	—	20,653	13	20,666
Electricity generation, utilities:									
1979	11,260	3,613	3,283	3,107	2,776	89	24,128	(7,067)	—
1980	12,123	3,810	2,634	3,085	2,739	114	24,505	(7,147)	—
1981	12,583	3,768	2,202	3,072	3,008	127	24,760	(7,325)	—
1982	12,582	3,342	1,568	3,528	3,131	108	24,259	(7,119)	—
1983	13,213	2,998	1,544	3,838	3,203	133	24,930	(7,339)	—
1984	14,020	3,220	1,286	3,741	3,538	174	25,980	(7,773)	—
1985[R]	14,542	3,160	1,090	3,330	4,147	213	26,482	(7,880)	—
1986[P]	14,462	2,701	1,452	3,462	4,475	232	26,784	(8,110)	—
Unaccounted for:									
1979	—	—	—	—	—	—	—	—	—
1980	—	—	—	—	—	—	—	—	—
1981	—	—	—	—	—	—	—	—	—
1982	—	3	—	—	—	—	3	—	3
1983	(1)	4	(1)	—	—	—	1	—	1
1984	—	—	—	—	—	—	—	—	—
1985[R]	(1)	(1)	(1)	—	—	(1)	(1)	—	(1)
1986[P]	7	1	—	—	—	—	7	—	7
Total gross energy inputs:									
1979	15,102	20,666	37,123	3,141	2,776	89	78,898	—	61,837
1980	15,388	20,391	34,202	3,118	2,739	114	75,952	—	58,594
1981	15,892	19,926	31,931	3,105	3,008	127	73,989	—	56,552
1982	—	3	—	—	—	—	3	—	3
1983	(1)	4	(1)	—	—	—	1	—	1
1984	—	—	—	—	—	—	—	—	—
1985[R]	(1)	(1)	(1)	—	—	(1)	(1)	—	(1)
1986[P]	7	1	—	—	—	—	7	—	7

a. Gross energy is the total of inputs into the economy of the primary fuels (including imports) or their derivatives, plus the generation of hydro, nuclear power and other (converted to equivalent energy inputs).
b. Excludes natural gas liquids.
c. Petroleum products including still gas, liquefied refinery gas and natural gas liquids.
d. Outputs and hydropower (adjusted for net imports or net exports) are converted to theoretical energy inputs using 10,445 Btu per net KWH for 1986. Energy input for nuclear power converted at an average heat rate of 10,800 Btu per net KWH. Excludes inputs for power generation by non-utility plants, which are included within the other consuming sectors.
e. Includes geothermal power and electricity produced from wood and waste.
f. Gross energy resource inputs with electricity generation shown as separate consuming sector.
g. Utility electricity generated and imported, distributed to the other consuming sectors as energy resource inputs.
h. Includes net imports of coke of 63 trillion Btu in 1979, −35 trillion Btu in 1980, −16 trillion Btu in 1981, −22 trillion Btu in 1982, −16 trillion Btu in 1983, −11 trillion Btu in 1984, −13 trillion Btu in 1985, and −17 trillion Btu in 1986.
i. Includes bunkers and military transportation.

R–Revised. P–Preliminary.

Source: U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review*.

TABLE 10-2
ANNUAL CONSUMPTION OF FOSSIL ENERGY RESOURCES, AND ELECTRICITY FROM HYDROPOWER AND NUCLEAR POWER, IN THE UNITED STATES, 1960–1986[a]

(Trillions of Btu)

Year	Natural Gas Dry[b,c]	Natural Gas Liquids	Crude Petroleum and Products	Bituminous Coal and Lignite[d]	Anthracite Coal	Hydro-power[e]	Nuclear[e]	Other[f]	Grand Total Energy
1960	12,750	1,627	18,608	9,967	447	1,626	5	g	44,816
1961	13,228	1,498	18,989	9,809	404	1,628	17	g	45,573
1962	14,027	1,586	19,681	10,160	363	1,780	23	g	47,620
1963	14,643	1,705	20,247	10,722	361	1,740	33	g	49,449
1964	15,515	1,772	20,700	11,295	365	1,871	34	g	51,554
1965	16,097	1,853	21,566	12,030	328	2,057	38	g	53,969
1966	17,393	1,999	22,405	12,740	290	2,073	58	g	56,948
1967	18,250	2,063	23,292	11,962	274	2,344	80	g	58,265
1968	19,580	2,239	24,813	12,401	258	2,342	130	g	61,763
1969	21,020	2,459	25,962	12,509	224	2,659	146	g	64,979
1970	22,029	2,494	27,043	12,488	210	2,650	229	g	67,143
1971	22,470	2,496	28,074	11,858	187	2,862	404	g	68,351
1972	22,698	2,706	30,260	12,273	150	2,946	576	g	71,609
1973	22,512	2,652	32,188	12,970	h	3,010	910	46	74,288
1974	21,732	2,565	30,890	12,724	h	3,309	1,272	56	72,548
1975	19,948	2,484	30,247	12,682	h	3,219	1,900	72	70,552
1976	20,345	i	35,175	13,589	h	3,066	2,111	81	74,367
1977	19,931	i	37,122	13,940	h	2,515	2,702	82	76,292
1978	20,000	i	37,965	13,892	h	3,141	3,024	68	78,090
1979	20,666	i	37,123	15,105	h	3,141	2,776	89	78,900
1980	20,391	i	34,202	15,391	h	3,118	2,739	114	75,955
1981	19,926	i	31,931	15,892	h	3,105	3,008	127	73,989
1982	18,507	i	30,232	15,300	h	3,561	3,131	108	70,840
1983	17,352	i	30,054	15,887	h	3,871	3,260	133	70,495
1984	18,507	i	31,051	17,063	h	3,774	3,538	174	74,108
1985[R]	17,851	i	30,922	17,466	h	3,363	4,147	212	73,962
1986[P]	16,531	i	31,887	17,256	h	3,495	4,475	232	73,873

a. Represents production minus exports plus imports, and adjusted for change in inventories.
b. The Btu value per cubic foot for natural gas dry for 1962 and prior years is 1,035; 1963 1,031; 1964, 1965 and 1967 1,032; 1966 1,033; 1968–1971 1,031; 1972 1,027; 1973 1,021; 1974 1,024; 1975 1,021; 1976 1,020; 1977 1,021; 1978 1,019; 1979 1,021; 1980 1,026; 1981 1,027; 1982 1,028; 1983–1986 1,031.
c. Marketed production minus shrinkage caused by liquids extraction.
d. Includes net imports of coke of −7 trillion Btu in 1973, 56 trillion Btu in 1974, 14 trillion Btu in 1975, 15 trillion Btu in 1977, 125 trillion Btu in 1978, 63 trillion Btu in 1979, −35 trillion Btu in 1980, −16 trillion Btu in 1981, −22 trillion Btu in 1982, −16 trillion Btu in 1983, −11 trillion in 1984, −13 trillion in 1985, and −17 trillion Btu in 1986.
e. See Table 5-1 for procedures used to determine Btu equivalents.
f. Includes energy from geothermal, wood or waste products.
g. Not available.
h. Included in "Bituminous Coal and Lignite."
i. Included in "Crude Petroleum and Products."
R–Revised. P–Preliminary.
Source: Prior to 1977, U.S. Bureau of Mines, 1977 and beyond, U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review*.

TABLE 10-3
ANNUAL CONSUMPTION OF FOSSIL ENERGY RESOURCES, AND ELECTRICITY FROM HYDROPOWER AND NUCLEAR POWER, IN THE UNITED STATES, 1960–1986

(Percentage)

Year	Natural Gas Dry	Natural Gas Liquids	Crude Petroleum and Products	Bituminous Coal and Lignite	Anthracite Coal	Hydro-power	Nuclear	Other	Grand Total Energy
1960	31.4	3.2	41.6	22.2	1.0	3.6	a	b	100.0
1965	29.8	3.4	40.0	22.3	0.6	3.8	0.1	b	100.0
1970	32.8	3.7	40.3	18.6	0.3	4.0	0.3	b	100.0
1971	32.9	3.6	41.1	17.3	0.3	4.2	0.6	b	100.0
1972	31.7	3.8	42.3	17.1	0.2	4.1	0.8	b	100.0
1973	30.3	3.6	43.3	17.4	c	4.1	1.2	0.1	100.0
1974	30.0	3.4	42.6	17.5	c	4.6	1.8	0.1	100.0
1975	28.3	3.4	42.9	18.0	c	4.6	2.7	0.1	100.0
1976	27.4	d	47.3	18.3	c	4.1	2.8	0.1	100.0
1977	26.1	d	48.7	18.3	c	3.3	3.5	0.1	100.0
1978	25.6	d	48.6	17.8	c	4.0	3.9	0.1	100.0
1979	26.2	d	47.1	19.1	c	4.0	3.5	0.1	100.0
1980	26.8	d	45.0	20.3	c	4.1	3.6	0.2	100.0
1981	26.9	d	43.2	21.5	c	4.2	4.1	0.2	100.0
1982	26.1	d	42.7	21.6	c	5.0	4.4	0.2	100.0
1983	24.6	d	42.6	22.5	c	5.5	4.6	0.2	100.0
1984	24.5	d	42.1	23.3	c	5.1	4.8	0.2	100.0
1985[R]	24.1	d	41.8	23.6	c	4.6	5.6	0.3	100.0
1986[P]	22.6	d	43.2	23.3	c	4.7	6.1	0.3	100.0

a. Less than 0.05.
b. Not available.
c. Included in "Bituminous Coal and Lignite."
d. Included in "Crude Petroleum and Products."
R–Revised. P–Preliminary.
Source: Same as Table 10-1.

TABLE 10-4
ENERGY CONSUMPTION PER CAPITA IN THE UNITED STATES, 1960–1986

Year	Total Energy Consumed (Trillions of Btu)	Natural Gas Consumed (Trillions of Btu)	Resident Population (Thousands)	Energy Consumed Per Capita (Millions of Btu)	Natural Gas Consumed Per Capita (Millions of Btu)	Gross National Product (Billions of 1982 $)	Total Energy Per Dollar of GNP (Thousands of Btu / 1982 $)	Index of Industrial Production (1977 = 100)
1960	44,616	12,730	179,992	249	71	1,665.3	26.9	48.8
1965	53,980	16,097	193,815	278	83	2,087.6	25.9	66.1
1970	67,143	22,029	203,302	330	108	2,416.2	27.8	78.5
1971	68,351	22,470	206,827	330	109	2,484.8	27.5	79.6
1972	71,667	22,695	209,284	342	108	2,608.5	27.5	87.3
1973	74,282	22,505	211,357	351	106	2,744.1	27.1	94.4
1974	72,545	21,725	213,342	340	102	2,729.3	26.6	93.0
1975	70,546	19,948	215,465	327	93	2,695.0	26.2	84.8
1976	74,362	20,338	217,563	342	93	2,826.7	26.3	92.6
1977	76,289	19,924	219,760	347	91	2,958.6	25.8	100.0
1978	78,688	20,000	222,095	352	90	3,115.2	25.1	106.5
1979[R]	78,897	20,666	224,567	351	92	3,192.4	24.7	110.7
1980[R]	77,959	20,191	226,505	335	90	3,187.1	23.8	108.6
1981[R]	77,991	19,926	229,307	337	87	3,248.8	22.8	111.0
1982[R]	76,610	19,507	231,507	306	80	3,166.0	22.4	103.1
1983[R]	76,500	17,352	233,974	301	74	3,277.0	21.5	109.2
1984[R]	78,064	18,507	236,636	311	78	3,492.0	21.2	121.8
1985[R]	77,962	17,813	238,895	310	73	3,595.2	20.6	123.8
1986[P]	73,873	16,527	241,164	306	69	3,674.9	20.1	125.0

R–Revised. P–Preliminary.
Source: U.S. Department of Energy, U.S. Bureau of the Census and the Federal Reserve Board.

TABLE 9-14
AVERAGE CONSUMER PRICE INDEXES, 1960-1986[a]

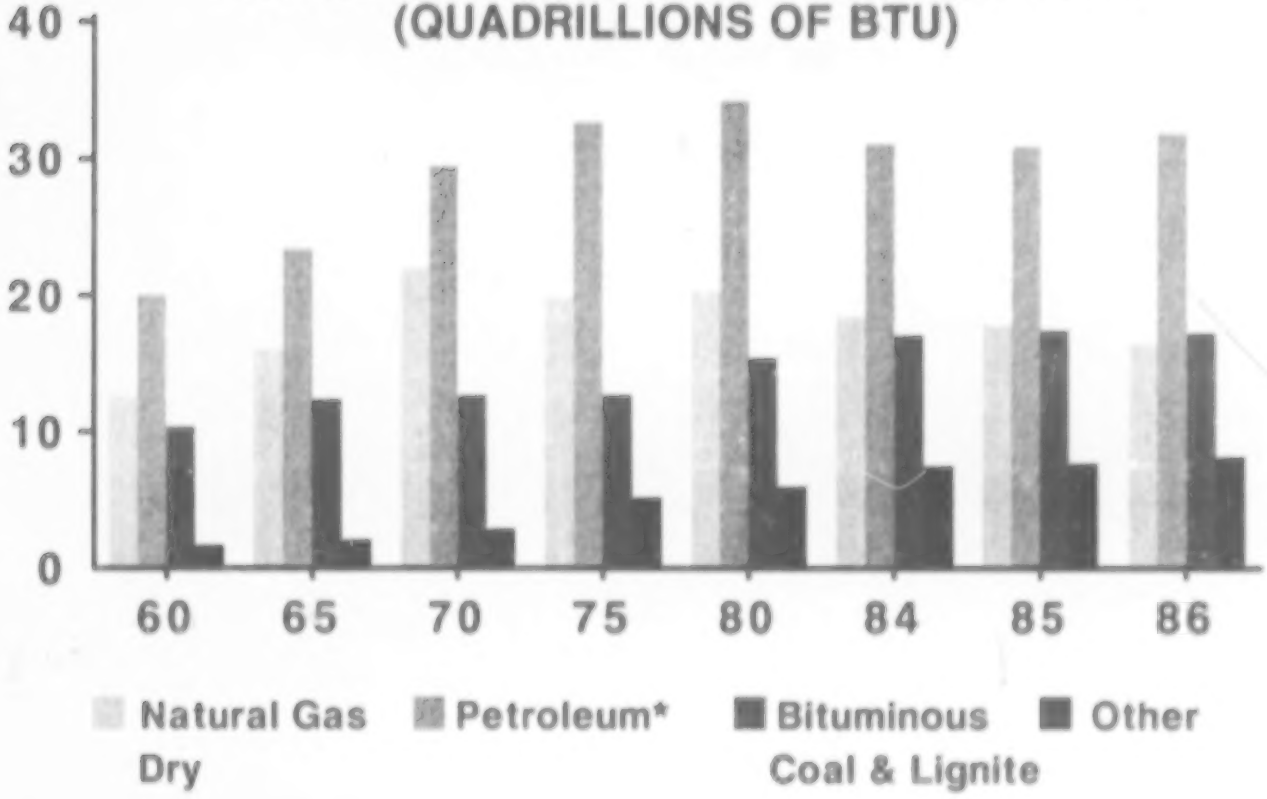
(1967=100)

Year	All Items	Total Food	Apparel[b] and Upkeep	Shelter[c]	Gas and Electricity	Fuel Oil[d] and Coal	House Furnishing[e] and Operation	Trans-portation	Medical Care	Personal Care	Reading and Recreation	Other Goods and Services[f]
1960	88.6	88.0	89.6	87.8	98.6	89.2	99.3	89.6	79.1	90.1	87.3	87.8
1965[R]	94.5	94.4	93.7	93.8	99.4	94.6	97.1	95.9	89.5	95.2	95.9	94.2
1966[R]	97.2	99.1	96.1	96.8	99.6	97.0	98.0	97.2	97.1	97.5	97.5	97.2
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	104.2	103.6	105.4	104.8	100.9	103.1	103.9	103.2	106.1	104.2	104.7	104.6
1969	109.8	108.9	111.5	113.3	102.8	105.6	109.0	107.2	113.4	109.3	108.7	110.3
1970	116.3	114.9	116.1	123.6	107.3	110.1	113.4	112.7	120.6	113.2	113.4	116.2
1971	121.3	118.4	119.8	128.8	114.7	117.5	118.1	118.6	128.4	116.8	119.3	122.2
1972	125.3	123.5	122.3	134.5	120.5	118.5	121.0	119.9	132.5	119.8	122.8	126.1
1973	133.1	141.4	126.8	140.7	126.4	136.0	124.9	123.8	137.7	125.2	125.9	129.0
1974	147.7	161.7	136.2	154.4	145.8	214.6	140.5	137.7	150.5	138.3	133.8	137.2
1975	161.2	175.4	142.3	169.7	169.6	235.3	158.1	150.6	168.6	150.7	144.4	147.4
1976	170.5	180.8	147.6	179.0	189.0	250.8	168.5	165.5	184.7	160.5	151.2	153.3
1977	181.5	192.2	154.2	191.1	213.4	283.4	177.0	177.2	202.4	170.9	157.9	159.2
1978	195.3	211.2	159.5	210.3	232.6	298 3	177.0	185.8	219.4	182.0	g	183.2
1979	217.7	234.7	166.4	240.3	257.6	403.6	188.9	212.8	240.1	195.5	g	196.3
1980	247.0	255.3	177.4	283.1	301.2	557.2	202.9	250.5	267.2	212.7	g	213.6
1981	272.4	274.6	186.9	314.7	345.9	675.9	221.3	280.0	294.5	232.0	g	235.7
1982	289.1	285.7	191.8	337.0	393.8	667.9	233.2	291.5	328.7	248.3	g	257.0
1983	298.4	291.7	196.5	344.8	428.7	628.0	238.5	298.4	357.3	261.1	g	288.3
1984	311.1	302.9	200.2	361.7	445.2	641.8	242.5	311.7	379.5	271.4	g	307.7
1985	327.9	309.5	204.5	401.6	466.0	486.6	250.2	308.6	432.0	291.0	g	342.6
1986	328.4	319.7	210.9	409.3	445.6	504.5	246.5	307.6	431.0	289.0	g	341.7

a. Applicable to "wage-earners and clerical workers in urban United States."
b. Includes apparel only prior to June 1964.
c. Includes hotel and motel rates.
d. Starting in 1978 includes bottled gas.
e. Includes house furnishings only prior to 1969.
f. Prior to 1978 included alcoholic beverages, now found in food and beverages; now includes personal care and education—related expenses, formerly found in health and recreation.
g. Not available.
R–Revised.
Source: Bureau of Labor Statistics. *The Consumer Price Index*, 1986.

CHART 10-1

UNITED STATES ENERGY CONSUMPTION (QUADRILLIONS OF BTU)



*Includes Natural Gas Liquids

REFERENCE: TABLE 10-1

TABLE 10-5
GAS UTILITY INDUSTRY AVERAGE ANNUAL CONSUMPTION PER CUSTOMER, BY CLASS OF SERVICE, 1960-1986[a]

(MMBtu/Customer)

Year	Total	Residential	Commercial	Industrial[b]	Other[b]
1960	281.0	104.3	374.2	33,495.0	12,577.5
1961	283.4	106.7	390.7	32,621.7	13,468.7
1962	295.1	110.9	420.7	32,713.9	13,795.1
1963	302.8	112.1	430.6	33,630.8	13,460.2
1964	317.9	115.3	469.5	37,089.1	13,234.6
1965	320.9	116.5	482.1	36,982.6	12,009.8
1966	336.4	118.8	510.0	38,259.3	12,755.1
1967	345.2	121.5	537.8	38,710.3	11,397.0
1968	362.4	124.1	567.6	40,378.0	13,129.2
1969	376.7	128.4	611.0	42,220.0	11,327.2
1970	386.8	129.2	640.9	42,386.7	12,232.3
1971	395.0	129.9	673.8	42,235.0	17,064.6
1972	397.7	130.4	697.3	41,948.8	16,428.8
1973	377.0	124.5	684.6	40,051.7	15,129.5
1974	361.1	119.6	676.1	42,066.8	12,586.1
1975	333.6	121.9	708.9	37,253.5	12,039.8
1976	329.7	121.3	718.6	40,022.3	3,511.6
1977	316.8	118.7	714.8	39,217.5	3,996.3
1978	322.2	121.0	743.6	36,635.8	4,511.8
1979	330.3	118.6	726.5	40,345.3	5,133.9
1980	326.4	111.0	701.0	42,505.2	3,645.2
1981	320.7	104.4	666.4	44,020.2	3,235.0
1982	292.9	107.1	680.6	36,514.2	3,243.0
1983	263.5	99.1	625.1	32,759.3	2,996.9
1984	266.8	102.0	642.3	33,253.2	3,094.2
1985[R]	252.5	98.3	612.7	31,473.1	2,739.9
1986	219.4	94.0	575.0	24,448.0	3,215.2

a. Excludes customers purchasing for resale and sales for resale. Customer data is based on yearly averages. Excludes data for Alaska prior to 1961.

b. Prior to 1976, "Other" electric generation (See Table 6-12) is included in the "Other" class of service. For 1976 and beyond, all electric generation is included in the Industrial category.

R–Revised.

TABLE 10-6
GAS UTILITY INDUSTRY AVERAGE ANNUAL RESIDENTIAL CONSUMPTION PER CUSTOMER BY STATE, 1960-1986[a]

(MMBtu/Customer)

Division and State	1960	1965	1970	1975	1980	1985[R]	1986
United States	**104.8**	**116.5**	**129.2**	**121.9**	**111.0**	**98.3**	**94.0**
New England	**49.5**	**67.7**	**86.0**	**85.3**	**90.0**	**88.8**	**91.7**
Connecticut	51.2	68.7	87.6	84.6	88.1	85.8	91.7
Maine	29.3	32.1	38.2	38.7	43.2	44.3	46.1
Massachusetts	50.2	69.2	87.0	86.0	91.3	89.9	91.6
New Hampshire	51.4	74.1	93.3	95.1	97.7	94.7	99.6
Rhode Island	47.6	65.0	82.9	84.0	86.7	89.3	91.8
Vermont	19.9	23.1	65.2	93.3	102.8	105.3	107.0
Middle Atlantic	**77.6**	**91.2**	**107.3**	**102.1**	**102.8**	**94.7**	**97.7**
New Jersey	56.9	73.5	92.2	88.5	89.7	87.8	90.9
New York	63.3	77.7	91.5	89.4	90.7	87.0	89.9
Pennsylvania	117.8	128.7	146.5	135.1	133.3	112.9	116.2
East North Central	**137.1**	**159.3**	**175.7**	**164.5**	**158.6**	**137.1**	**133.4**
Illinois	109.4	139.9	164.8	168.9	162.5	147.3	145.0
Indiana	103.5	134.1	159.9	151.5	143.9	122.8	118.5
Michigan	146.4	173.5	189.1	167.7	172.8	145.8	139.9
Ohio	183.0	188.5	193.5	171.2	158.3	131.8	130.3
Wisconsin	92.2	129.0	145.0	139.0	130.8	116.5	108.6
West North Central	**151.0**	**158.9**	**167.9**	**152.6**	**131.3**	**117.4**	**109.1**
Iowa	149.3	162.1	167.8	152.2	127.7	116.4	109.6
Kansas	157.0	156.6	165.8	150.4	126.6	110.8	98.8
Minnesota	145.9	167.3	175.6	159.7	138.9	129.2	121.6
Missouri	149.9	152.0	165.5	148.9	133.2	112.7	106.8
Nebraska	160.5	162.3	167.5	155.2	128.9	118.4	106.8
North Dakota	118.8	164.5	171.4	163.0	127.6	124.5	112.2
South Dakota	145.8	158.5	153.2	145.0	117.4	115.8	106.8
South Atlantic	**93.1**	**95.9**	**111.0**	**96.3**	**93.2**	**78.0**	**80.0**
Delaware	63.7	85.6	109.0	93.6	93.4	81.1	87.6
District of Columbia	79.8	87.8	102.7	95.9	103.5	90.3	98.3
Florida	19.6	27.1	48.2	38.6	40.0	32.5	32.9
Georgia	110.9	103.1	123.9	103.5	96.9	81.7	77.7
Maryland	84.3	95.3	110.6	97.5	96.6	85.0	91.5
North Carolina	78.2	89.8	112.1	92.7	97.1	76.6	78.0
South Carolina	68.8	75.9	91.1	72.7	77.3	58.1	60.7
Virginia	83.4	94.0	111.1	100.1	99.7	84.3	89.6
West Virginia	163.5	159.0	161.0	149.4	131.0	108.9	113.9
East South Central	**118.1**	**111.5**	**126.0**	**107.1**	**102.4**	**85.0**	**82.9**
Alabama	96.6	90.7	106.9	91.2	86.9	73.6	71.3
Kentucky	153.3	144.9	157.4	136.7	130.4	104.2	103.5
Mississippi	97.7	89.0	105.5	86.6	85.9	73.5	69.2
Tennessee	118.6	114.3	126.5	105.5	101.7	85.5	83.6
West South Central	**96.5**	**92.2**	**104.6**	**95.9**	**84.3**	**74.9**	**67.9**
Arkansas	121.7	113.8	133.0	114.0	95.6	87.2	79.7
Louisana	87.4	82.1	95.9	81.9	77.0	66.1	62.3
Oklahoma	114.9	116.3	126.8	120.6	103.5	95.3	84.6
Texas	91.2	86.3	97.6	91.5	80.2	70.4	63.4
Mountain	**138.2**	**140.2**	**140.5**	**131.0**	**103.9**	**94.0**	**83.1**
Arizona	75.3	77.0	78.4	77.3	59.1	54.6	46.6
Colorado	150.1	153.4	155.0	147.2	119.8	99.7	87.0
Idaho	100.5	118.0	114.7	110.7	79.5	81.3	76.3
Montana	175.9	185.0	175.5	171.2	126.1	123.7	106.6
Nevada	88.8	103.1	112.5	113.2	87.5	73.2	63.1
New Mexico	133.1	134.4	130.3	126.6	99.1	84.4	78.9
Utah	202.4	201.2	212.1	180.1	139.0	134.9	122.2
Wyoming	173.9	173.0	180.5	161.7	128.6	122.7	106.1
Pacific	**92.3**	**104.6**	**105.7**	**109.9**	**81.6**	**75.6**	**65.2**
Alaska	b	230.0	199.3	221.3	216.9	205.8	183.0
California	93.2	105.0	104.6	109.4	80.5	73.6	63.0
Hawaii	25.2	27.2	33.7	29.1	25.0	20.3	19.6
Oregon	78.9	90.6	113.2	107.0	79.8	83.5	71.7
Washington	105.1	115.5	128.3	122.0	95.5	94.0	89.1

a. Customer data is based on yearly averages.
b. Not available.
R - Revised.

GAS FACTS

TABLE 10-7

HEATING DEGREE DAYS[a] BY CALENDAR YEAR AND HEATING SEASONS, 1986-1987, AND THIRTY-YEAR NORMALS

Division and State	Calendar Year Degree Days			Heating Season Degree Days[b]		
	30-Year[c] Normals 1951-1980	1985	1986	30-Year[c] Normals 1951/52-1980/81	1985-1986	1986-1987
United States	**4,694**	**4,773**	**4,429**	**3,798**	**3,707**	**3,657**
New England	**6,562**	**6,537**	**6,489**	**5,071**	**5,014**	**5,069**
Connecticut	6,146	5,886	5,902	4,839	4,711	4,703
Maine	7,945	8,257	8,143	5,892	6,036	6,054
Massachusetts	6,322	6,368	6,315	4,913	4,858	4,969
New Hampshire	7,599	7,568	7,419	5,752	5,707	5,687
Rhode Island	5,968	5,759	5,793	4,629	4,466	4,535
Vermont	7,979	8,184	7,968	6,045	6,139	6,137
Middle Atlantic	**5,820**	**5,674**	**5,675**	**4,661**	**4,577**	**4,603**
New Jersey	5,424	5,211	5,304	4,422	4,331	4,374
New York	5,943	5,810	5,752	4,730	4,639	4,645
Pennsylvania	5,881	5,764	5,793	4,708	4,639	4,680
East North Central	**6,375**	**6,544**	**6,142**	**5,131**	**5,209**	**4,810**
Illinois	6,175	6,600	6,299	5,083	5,294	4,752
Indiana	5,871	5,935	5,588	4,815	4,777	4,567
Michigan	6,823	6,855	6,643	5,363	5,423	5,023
Ohio	5,897	5,913	5,585	4,766	4,676	4,549
Wisconsin	7,665	7,971	7,413	6,004	6,307	5,415
West North Central	**6,657**	**7,128**	**6,239**	**5,419**	**5,558**	**4,867**
Iowa	6,932	7,371	6,578	5,663	5,991	5,024
Kansas	4,988	5,557	4,475	4,271	4,164	4,024
Minnesota	8,771	9,191	8,347	6,855	7,183	5,915
Missouri	5,091	5,563	4,777	4,344	4,364	4,109
Nebraska	6,435	6,913	5,868	5,261	5,286	4,684
North Dakota	9,481	9,956	8,818	7,277	7,309	6,384
South Dakota	7,714	8,244	7,236	6,091	6,357	5,272
South Atlantic	**2,999**	**2,842**	**2,793**	**2,603**	**2,444**	**2,543**
Delaware	4,784	4,372	4,574	4,007	3,843	3,956
District of Columbia	d	d	d	d	d	d
Florida	720	754	579	713	671	578
Georgia	2,788	2,654	2,441	2,507	2,259	2,360
Maryland	4,811[e]	4,465[e]	4,658[e]	4,034[e]	3,884[e]	3,988[e]
North Carolina	3,481	3,229	3,206	3,043	2,796	3,053
South Carolina	2,743	2,564	2,456	2,495	2,246	2,466
Virginia	4,532	4,102	4,240	3,661	3,529	3,747
West Virginia	5,250	5,098	4,986	4,270	4,082	4,158
East South Central	**3,555**	**3,601**	**3,299**	**3,109**	**2,928**	**2,971**
Alabama	2,828	2,844	2,589	2,549	2,380	2,411
Kentucky	4,544	4,546	4,238	3,861	3,634	3,722
Mississippi	2,510	2,644	2,354	2,308	2,191	2,269
Tennessee	3,954	4,015	3,671	3,422	3,233	3,232
West South Central	**2,313**	**2,498**	**2,094**	**2,142**	**1,931**	**2,203**
Arkansas	3,327	3,502	3,049	2,991	2,728	2,931
Louisiana	1,794	1,882	1,630	1,703	1,558	1,717
Oklahoma	3,571	3,910	3,258	3,213	3,028	3,236
Texas	2,035	2,220	1,829	1,908	1,681	2,009
Mountain	**5,529**	**5,933**	**5,097**	**4,182**	**3,949**	**4,174**
Arizona	2,313	2,281	1,843	2,037	1,671	2,026
Colorado	7,123	7,659	6,837	5,192	4,969	5,320
Idaho	6,935	8,269	6,502	5,061	5,332	4,944
Montana	8,260	8,897	7,573	5,822	5,802	5,372
Nevada	4,263	4,525	3,722	3,373	3,000	3,407
New Mexico	4,756	4,674	4,396	3,842	3,372	4,006
Utah	6,555	7,198	6,052	4,966	4,760	4,862
Wyoming	8,023	8,743	7,542	5,744	5,672	5,606
Pacific	**3,322**	**3,465**	**2,829**	**2,432**	**2,226**	**2,305**
Alaska	f	f	f	f	f	f
California	2,703	2,694	2,192	2,060	1,746	1,955
Hawaii	f	f	f	f	f	f
Oregon	5,255	5,905	4,827	3,573	3,677	3,435
Washington	5,637	6,336	5,201	3,840	4,053	3,593

a. See glossary for definitions of (heating) degree days. Division heating degree days are the weighted average of all states in a region, according to the 1980 population. National heating degree days are the weighted average of all divisions, according to the 1980 population.

b. Heating season is defined as November through March period.

c. The transference of many weather stations between city locations and nearby airports at some time during the 30 year period has led to the introduction of slight inconsistencies in the average data.

d. Included in Maryland.

e. Includes the District of Columbia.

f. Not available.

Source: National Oceanic and Atmospheric Administration, *Monthly State, Regional and National Heating Degree Days Weighted by Population.*

TABLE 10-8
GAS UTILITY INDUSTRY AVERAGE ANNUAL CONSUMPTION PER CUSTOMER BY STATE AND CLASS OF SERVICE, 1986[a]

(MMBtu/Customer)

Division and State	Total	Class of Service				
		Residential	Commercial	Industrial	Electric Generation	Other
United States	**219.4**	**94.0**	**575.0**	**16,330.3**	**3,191,022.9**	**3,215.2**
New England	**168.2**	**91.7**	**594.5**	**7,243.4**	**1,600,150.0**	**601.1**
Connecticut	179.3	91.7	647.9	6,959.6	b	1,170.4
Maine	165.4	46.1	393.7	10,315.5	b	b
Massachusetts	165.3	91.6	617.0	7,805.0	1,711,244.4	638.3
New Hampshire	183.8	99.6	547.7	8,729.2	b	896.8
Rhode Island	145.0	91.8	392.3	4,426.1	588,900.0	7,850.0
Vermont	272.0	107.0	529.2	104,918.2	b	46.7
Middle Atlantic	**167.5**	**97.7**	**531.7**	**10,467.2**	**2,016,230.8**	**3,107.1**
New Jersey	165.2	90.9	459.3	10,119.1	3,257,300.0	9,230.4
New York	145.3	89.9	476.9	6,493.9	2,602,400.0	2,845.9
Pennsylvania	206.9	116.2	709.5	20,142.1	42,450.0	4,398.5
East North Central	**232.2**	**133.4**	**719.4**	**12,538.6**	**124,552.5**	**2,270.6**
Illinois	257.1	145.0	803.1	10,927.8	234,640.7	237.6
Indiana	253.0	118.5	588.7	24,997.7	123,700.0	2,906.1
Michigan	220.4	139.9	793.6	9,261.1	53,294.7	b
Ohio	204.5	130.3	675.0	14,174.2	13,047.8	2,650.0
Wisconsin	229.0	108.6	597.0	11,330.2	229,866.7	27,110.0
West North Central	**233.7**	**109.1**	**628.3**	**23,858.6**	**82,289.0**	**2,969.6**
Iowa	260.2	109.6	559.2	38,071.6	37,753.1	853.9
Kansas	265.4	98.8	563.2	20,480.7	129,194.1	10,624.1
Minnesota	251.1	121.6	636.6	17,894.7	48,426.1	1,499.0
Missouri	193.2	106.8	774.3	49,295.7	103,145.8	2,338.4
Nebraska	220.1	106.8	531.6	20,241.1	54,373.9	1,247.8
North Dakota	218.3	112.2	839.9	30,411.5	b	420.0
South Dakota	206.4	106.8	596.6	10,933.8	29,300.0	59,100.0
South Atlantic	**237.4**	**80.0**	**641.8**	**23,064.0**	**4,200,202.9**	**611.8**
Delaware	255.6	87.6	628.8	44,256.5	1,014,500.0	36,400.0
District of Columbia	204.6	98.3	1,160.3	b	b	b
Florida	518.3	32.9	815.6	98,935.4	7,089,689.5	4,044.0
Georgia	190.2	77.7	591.3	33,367.3	752,566.7	140.8
Maryland	151.4	91.5	567.0	4,326.3	330,500.0	1,200.0
North Carolina	279.3	78.0	508.1	25,004.4	1,015,200.0	841.8
South Carolina	286.9	60.7	482.2	46,211.4	151,200.0	606.0
Virginia	213.1	89.6	773.1	15,043.1	199,900.0	365.4
West Virginia	186.4	113.9	621.4	40,685.1	107,550.0	655.9
East South Central	**226.1**	**82.9**	**510.7**	**33,328.2**	**1,662,514.3**	**1,009.9**
Alabama	222.6	71.3	538.5	40,499.8	57,350.0	269.1
Kentucky	184.7	103.5	477.9	20,687.3	b	4,017.7
Mississippi	255.0	69.2	330.9	34,769.4	1,927,841.7	2,266.3
Tennessee	257.1	83.6	617.1	33,201.7	b	237.6
West South Central	**347.9**	**67.9**	**429.6**	**33,433.0**	**8,215,828.9**	**11,276.5**
Arkansas	209.5	79.7	411.9	27,382.0	484,383.3	2,409.1
Louisiana	209.4	62.3	354.7	58,042.4	1,884,472.2	14,584.9
Oklahoma	175.5	84.6	408.9	19,569.8	180,630.0	1,166.9
Texas	454.0	63.4	457.0	34,473.7	13,957,704.0	11,820.8
Mountain	**164.1**	**83.1**	**530.6**	**18,055.0**	**608,127.5**	**3,906.8**
Arizona	120.1	46.6	520.6	29,183.5	1,660,750.0	3,877.7
Colorado	158.1	87.0	536.7	21,574.4	342,928.6	3,183.6
Idaho	175.3	76.3	478.4	33,128.0	b	b
Montana	197.7	106.6	544.8	14,261.4	15,400.0	31,380.4
Nevada	149.9	63.1	685.5	45,693.3	680,316.7	53,528.6
New Mexico	159.2	78.9	400.9	3,191.6	615,600.0	3,204.9
Utah	211.6	122.2	558.2	45,226.5	96,375.0	10,800.0
Wyoming	235.6	106.1	628.2	53,161.9	152,000.0	466.7
Pacific	**179.9**	**65.2**	**482.1**	**9,577.1**	**23,897,021.1**	**12,616.4**
Alaska	553.7	183.0	1,078.5	b	3,061,766.7	b
California	170.4	63.0	444.1	8,761.2	33,513,292.3	14,326.4
Hawaii	94.1	19.6	744.5	621.1	b	b
Oregon	203.8	71.7	438.5	39,098.1	b	b
Washington	283.4	89.1	695.9	15,785.4	b	6,443.9

a. Excludes customers purchasing for resale and sales for resale. Customer data is based on yearly averages.
b. No sales reported.

SECTION 11
APPLIANCE AND HOUSING DATA

	1986	% Change 86/85
Manufacturer Shipments		
(Thousands of Units)		
Central Heating	2,301	+14.3
Ranges	1,940	+ 7.0
Water Heaters	3,729	+ 5.7
Clothes Dryers	934	+12.0
New One-Family Houses Completed		
(Thousands of Units)		
Gas Heat	526	+12.9

Note: Certain tables in this section could not be updated because current information was not available.

TABLE 11-1
MANUFACTURER SHIPMENTS OF GAS RANGES, WATER HEATERS AND CLOTHES DRYERS, 1960-1986[a]

(Thousands of Units)

Year	Domestic Range Sales			Automatic Domestic Water Heater Sales			Automatic Gas Dryers[c]
	Free-Standing[b]	Built-in	Total	Natural Gas	L.P. Gas	Total	
1960	1,475	339	1,814	2,383	338	2,721	431
1961	1,484	346	1,830	2,448	284	2,732	412
1962	1,621	360	1,981	2,588	288	2,876	475
1963	1,714	358	2,072	2,346	251	2,597	535
1964	1,826	345	2,171	2,482	242	2,724	632
1965	1,976	291	2,267	2,497	240	2,737	710
1966	1,931	232	2,163	2,341	296	2,637	751
1967	1,954	169	2,123	2,246	309	2,555	829
1968	2,102	184	2,286	2,411	345	2,756	876
1969	2,282	189	2,471	2,386	356	2,742	905
1970	2,195	167	2,362	2,404	381	2,785	852
1971	2,363	186	2,549	2,645	443	3,088	847
1972	2,467	194	2,661	2,676	487	3,163	936
1973	2,312	169	2,481	2,568	512	3,080	926
1974	1,825	125	1,950	2,210	359	2,569	739
1975	1,493	125	1,618	2,388	257	2,645	672
1976	1,693	131	1,824	2,695	417	3,112	707
1977	1,615	131	1,746	d	d	3,070	736
1978	1,665	129	1,794	2,578	343	2,921	757
1979	1,670	129	1,799	2,548	339	2,887	757
1980	1,437	102	1,539	2,498	320	2,818	682
1981	1,401	95	1,496	2,461	324	2,785	639
1982	1,289	79	1,368	2,771	270	3,041	584
1983	1,477	96	1,573	2,953	219	3,172	672
1984	1,626	106	1,732	3,281	221	3,502	754
1985[R]	1,729	84	1,813	3,303	226	3,529	834
1986	1,854	86	1,940	3,485	244	3,729	934

a. Shows shipments by manufacturers, expanded from returns of reporting companies to represent industry-wide coverage. Shipments of appliances for L.P. gas users include those for use by customers obtaining such gas through utility mains, as well as bottled gas users.
b. Free-standing includes free-standing, "set-in" and high-oven ranges.
c. Excludes combination washer-dryer units.
d. Not Available.
R–Revised.
Source: Gas Appliance Manufacturers Association, *Statistical Highlights*, Ten Year Summary, 1977-1986.

TABLE 11-2
MANUFACTURER SHIPMENTS OF GAS HEATING EQUIPMENT, 1960-1986[a]

(Thousands of Units)

Year	Central Heating Equipment				Floor and Wall Furnaces Total[b]	Direct Heating Equipment Total
	Warm Air Furnaces	Conversion Burners	Boilers	Total		
1960	900	132	153	1,185	453	1,211
1965	1,238	93	200	1,531	501	994
1966	1,213	93	186	1,492	515	1,034
1967	1,146	84	174	1,404	471	920
1968	1,428	79	187	1,694	555	974
1969	1,546	77	176	1,799	576	1,043
1970	1,471	66	164	1,701	545	781
1971	1,795	53	157	2,005	612	783
1972	2,066	40	156	2,262	762	708
1973	1,719	43	147	1,909	652	678
1974	1,476	89	123	1,688	409	488
1975	1,186	39	88	1,313	435	332
1976	1,554	26	113	1,693	523	306
1977	1,508	c	113	1,621	481	193
1978	1,636	c	126	1,762	532	175
1979	1,863	c	221	2,084	365	193
1980	1,446	c	293	1,739	297	222
1981	1,417	c	162	1,579	253	133
1982	1,156	c	148	1,304	260	182
1983	1,662	c	148	1,810	363	203
1984	1,849	c	180	2,029	391	256
1985	1,822	c	192	2,014	430	283
1986	2,105	c	196	2,301	427	281

a. Shows shipments by manufacturers; expanded from returns of reporting companies to represent industry-wide coverage.
b. Includes RV central and wall furnaces.
c. Not available.
Source: Gas Applicance Manufacturers Association, *Statistical Highlights*, Ten Year Summary, 1977-1986.

TABLE 11-3
MANUFACTURER SHIPMENTS OF RESIDENTIAL GAS APPLIANCES, BY MONTH, 1986

(Thousands of Units)

Month	Ranges		Automatic Water Heaters	Dryers[b]	Central Heating	
	Free-Standing[a]	Built-in			Warm Air Furnaces	Boilers
January	134.4	7.3	337.1	80.0	154.8	13.5
February	140.7	6.6	322.8	67.6	150.4	12.0
March	155.6	8.2	342.9	69.1	159.8	9.0
April	136.9	7.1	343.8	68.1	139.8	8.9
May	143.9	6.3	269.6	65.2	151.0	8.5
June	171.2	7.3	295.2	68.8	149.1	13.5
July	121.8	5.8	291.5	77.3	147.3	12.7
August	149.7	6.1	272.8	79.2	198.9	20.5
September	181.8	7.3	290.4	89.2	217.5	26.1
October	174.4	7.8	346.4	107.0	251.7	28.9
November	165.3	7.7	293.9	81.6	202.1	22.8
December	178.6	8.2	322.4	79.8	182.4	19.6
Total	1,854.3	85.7	3,728.8	935.9	2,104.8	196.0

a. Free-standing includes free-standing, "set-in" and high-oven ranges.
b. Excludes combination washer-dryer units.
Source: Gas Appliance Manufacturers Association, *Statistical Highlights*, March 1987.

TABLE 11-4
NUMBER OF OCCUPIED HOUSING UNITS,[a] BY TYPE OF HEATING FUEL AND BY CENSUS REGION, 1975-1982
(Thousands of Occupied Units)

Year and Region	Total	Gas	Electricity	Oil[b]	Other[c]/None
1975					
United States	**72,523**	**40,933**	**9,173**	**16,299**	**6,117**
Northeast	16,508	6,446	802	8,875	386
Midwest[d]	19,393	13,666	1,154	3,027	1,546
South	23,105	11,352	4,965	3,508	3,280
West	13,518	9,469	2,253	889	907
1976					
United States	**74,005**	**41,219**	**10,151**	**16,451**	**6,184**
Northeast	16,544	6,140	846	9,161	397
Midwest[d]	19,722	13,803	1,366	3,004	1,549
South	23,742	11,449	5,498	3,488	3,307
West	13,998	9,826	2,441	798	933
1977					
United States	**75,280**	**41,543**	**11,146**	**16,060**	**6,531**
Northeast	16,637	6,151	958	9,103	425
Midwest[d]	19,855	13,893	1,506	2,843	1,613
South	24,379	11,577	6,033	3,335	3,434
West	14,407	9,922	2,649	778	1,058
1978					
United States	**77,167**	**42,522**	**12,258**	**16,071**	**6,316**
Northeast	16,952	6,301	999	9,252	400
Midwest[d]	20,171	14,140	1,685	2,817	1,529
South	25,093	11,956	6,561	3,263	3,313
West	14,951	10,125	3,013	739	1,074
1979					
United States	**78,872**	**43,323**	**13,244**	**15,708**	**6,297**
Northeast	17,122	6,558	1,109	9,056	399
Midwest[d]	20,565	14,428	1,864	2,724	1,549
South	25,584	12,054	7,074	3,191	3,265
West	15,301	10,283	3,197	737	1,084
1980					
United States	**80,072**	**44,398**	**14,208**	**14,868**	**6,598**
Northeast	17,264	6,928	1,169	8,685	482
Midwest[d]	20,842	14,688	2,036	2,503	1,615
South	26,286	12,290	7,615	3,009	3,372
West	15,680	10,492	3,388	671	1,129
1981					
United States	**83,175**	**46,084**	**15,486**	**14,494**	**7,111**
Northeast	17,851	7,335	1,281	8,642	593
Midwest[d]	21,565	15,308	2,211	2,328	1,718
South	27,431	12,725	8,225	2,905	3,576
West	16,328	10,716	3,770	619	1,223
1982					
United States	**84,638**	**46,700**	**15,684**	**13,031**	**9,223**
Northeast	18,221	7,741	1,319	8,226	934
Midwest[d]	21,618	15,656	2,172	1,774	2,015
South	27,931	12,346	8,557	2,559	4,470
West	16,868	10,956	3,635	472	1,805

a. Units include both single-family and multifamily.
b. Oil includes kerosene.
c. Other includes LP gas, coal, wood and solar heat.
d. Formerly North Central.
Source: U.S. Bureau of the Census, Current Housing Reports—Series H-150. *Annual Housing Survey.* Part A: General Housing Characteristics.

TABLE 11-5
NEW ONE FAMILY HOUSES[a] COMPLETED, BY TYPE OF HEATING FUEL AND BY CENSUS REGION, 1978-1986

(Thousands of Units)

Year and Region	Total	Gas	Electricity	Oil[b]	Other / None
1978					
United States	**1,369**	**511**	**710**	**109**	**40**
Northeast	141	23	48	60	11
Midwest[c]	300	149	107	32	11
South	571	153	392	16	9
West	357	186	162	d	9
1979					
United States	**1,301**	**512**	**662**	**86**	**41**
Northeast	135	32	47	48	7
Midwest[c]	294	162	96	22	14
South	535	147	365	14	9
West	337	170	154	d	12
1980					
United States	**957**	**393**	**483**	**29**	**52**
Northeast	100	35	36	18	11
Midwest[c]	170	101	47	6	16
South	455	136	303	5	11
West	232	121	97	d	14
1981					
United States	**819**	**339**	**407**	**16**	**57**
Northeast	87	30	34	11	12
Midwest[c]	140	87	37	d	13
South	408	128	262	d	16
West	183	94	74	d	15
1982					
United States	**632**	**252**	**315**	**17**	**48**
Northeast	79	28	27	14	10
Midwest[c]	92	53	24	3	13
South	340	112	214	d	13
West	121	59	50	d	12
1983					
United States	**924**	**400**	**448**	**22**	**53**
Northeast	106	40	38	18	9
Midwest[c]	142	92	35	d	13
South	476	163	296	d	15
West	200	105	79	d	16
1984					
United States	**1,028**	**460**	**492**	**24**	**49**
Northeast	129	53	46	21	9
Midwest[c]	156	110	30	d	14
South	508	170	325	d	12
West	233	127	91	d	14
1985					
United States	**1,072**	**466**	**528**	**36**	**42**
Northeast	168	65	63	32	8
Midwest[c]	151	111	31	d	7
South	514	146	354	d	11
West	239	144	79	d	16
1986					
United States	**1,118**	**526**	**496**	**51**	**45**
Northeast	193	80	59	47	7
Midwest[c]	170	132	30	d	6
South	502	152	334	d	14
West	253	162	74	d	17

a. Includes only privately-owned housing units.
b. Does not include kerosene.
c. Formerly North Central.
d. Withheld because estimate did not meet Bureau of the Census publication standards.
Source: U.S. Bureau of the Census, Construction Reports—Series C25, *Characteristics of New Housing*, 1986.

TABLE 11-6
UNITS[a] IN NEW MULTIFAMILY BUILDINGS COMPLETED, BY TYPE OF HEATING FUEL AND BY CENSUS REGION, 1978-1986

(Thousands of Units)

Year and Region	Total	Gas	Electricity	Oil[b]	Other / None
1978					
United States	**498**	**131**	**339**	**24**	**5**
Northeast	41	9	13	18	d
Midwest[c]	117	44	70	2	d
South	181	16	161	3	1
West	160	61	95	6	4
1979					
United States	**570**	**150**	**386**	**27**	**6**
Northeast	53	11	21	21	d
Midwest[c]	121	50	69	2	1
South	227	22	200	4	2
West	169	68	97	d	4
1980					
United States	**545**	**168**	**362**	**12**	**6**
Northeast	46	16	20	10	d
Midwest[c]	104	46	57	d	1
South	242	36	204	2	d
West	153	67	81	d	5
1981					
United States	**447**	**142**	**293**	**7**	**4**
Northeast	40	23	11	5	d
Midwest[c]	78	42	36	d	d
South	218	33	184	1	d
West	111	44	63	d	4
1982					
United States	**374**	**103**	**258**	**9**	**7**
Northeast	41	15	17	8	1
Midwest[c]	51	32	17	d	2
South	199	21	176	d	1
West	82	34	45	d	3
1983					
United States	**467**	**133**	**327**	**3**	**4**
Northeast	33	21	9	d	e
Midwest[c]	59	37	22	d	1
South	270	31	238	d	1
West	104	44	58	d	3
1984					
United States	**627**	**165**	**452**	**5**	**5**
Northeast	40	16	18	d	1
Midwest[c]	65	34	32	d	e
South	358	46	312	d	e
West	164	70	90	d	4
1985					
United States	**631**	**197**	**425**	**3**	**5**
Northeast	46	25	17	3	1
Midwest[c]	79	36	42	d	1
South	298	34	263	d	1
West	207	101	103	d	3
1986					
United States	**636**	**221**	**400**	**8**	**7**
Northeast	61	33	19	7	2
Midwest[c]	100	43	56	d	1
South	259	33	224	1	1
West	216	112	101	d	3

a. Includes only privately-owned housing units.
b. Does not include kerosene.
c. Formerly North Central.
d. Withheld because estimate did not meet Bureau of the Census publication standards.
e. Fewer than 500 units.

Source: U.S. Bureau of the Census, Construction Reports—Series C25, *Characteristics of New Housing*, 1986.

TABLE 11-7
NUMBER OF OCCUPIED HOUSING UNITS,[a] BY TYPE OF COOKING FUEL AND BY CENSUS REGION, 1974-1980

(Thousands of Occupied Units)

Year and Region	Total	Gas	Electricity	Oil[b]	Other[c]/None
1974					
United States	**70,831**	**31,908**	**32,720**	**83**	**6,120**
Northeast	16,281	9,211	5,747	46	1,277
Midwest[d]	18,993	8,908	8,423	14	1,648
South	22,489	7,985	11,797	19	2,688
West	13,067	5,803	6,754	4	506
1975					
United States	**72,523**	**32,493**	**33,944**	**76**	**6,011**
Northeast	16,508	9,244	5,973	27	1,264
Midwest[d]	19,393	9,051	8,699	16	1,627
South	23,105	8,229	12,224	31	2,621
West	13,518	5,968	7,048	3	499
1976					
United States	**74,003**	**32,299**	**35,669**	**44**	**5,991**
Northeast	16,545	9,086	6,178	14	1,267
Midwest[d]	19,722	8,978	9,165	7	1,572
South	23,741	8,179	12,897	22	2,643
West	13,996	6,057	7,429	1	509
1977					
United States	**75,280**	**32,207**	**37,042**	**45**	**5,986**
Northeast	16,635	9,096	6,280	17	1,242
Midwest[d]	19,857	8,857	9,426	14	1,560
South	24,379	8,146	13,563	11	2,659
West	14,408	6,107	7,773	2	526
1978					
United States	**77,167**	**32,876**	**38,779**	**107**	**5,705**
Northeast	16,952	9,185	6,568	44	1,155
Midwest[d]	20,171	8,847	9,833	32	1,459
South	25,094	8,242	14,234	24	2,594
West	14,950	6,302	8,144	7	497
1979					
United States	**78,372**	**32,551**	**40,345**	**84**	**5,593**
Northeast	17,123	9,162	6,752	42	1,166
Midwest[d]	20,565	8,958	10,180	15	1,413
South	25,585	8,171	14,873	22	2,519
West	15,299	6,258	8,540	6	496
1980					
United States	**80,072**	**32,664**	**41,729**	**152**	**5,528**
Northeast	17,264	9,234	6,828	65	1,138
Midwest[d]	20,842	8,898	10,516	30	1,398
South	26,286	8,196	15,531	37	2,521
West	15,680	6,336	8,852	20	471

a. Units include both single-family and multifamily.
b. Oil includes kerosene.
c. Other includes LP gas, coal and wood.
d. Formerly North Central.

Sources: For 1974-1977, U.S. Bureau of the Census, Current Housing Reports—Series H-150, *Annual Housing Survey*. Part A. For 1978-1980, U.S. Bureau of the Census, Current Housing Reports—Series H-150, *Annual Housing Survey*. Part F: Energy-Related Housing Characteristics.

TABLE 10-9
GAS CONSUMPTION BY RESIDENTIAL APPLIANCES, 1982
AVERAGE CONSUMPTION, EXCLUDING EXTREMES

(Therms Per Year)

	House Range	Apt. Range	Water Heater	Clothes Dryer (gas pilot)	Clothes Dryer (elec. pilot)	Gas Light	Air Conditioner Consumption Per Ton	Gas Grill	Space Heating		Pulse Combustion
									Gas Pilot	Elec. Ignition	
United States[a]	79	56	267	60	41	150	198	26	760	702	541
New England	117	112	295	69	58	200	b	50	1,063	946	768
Middle Atlantic	94	51	326	57	37	180	339	30	918	869	641
East North Central	69	45	311	72	50	180	155	19	1,249	1,185	896
West North Central	74	61	319	76	57	161	202	21	958	906	670
South Atlantic	98	64	317	85	52	216	262	25	782	736	561[c]
East South Central	76	37	353	83	53	180	400	60	567	540	403[c]
West South Central	104	56	248	77	50	206	400	40	571	543	406[c]
Mountain	66	50	294	81	50	167	163	15	825	684	556[c]
Pacific	83	67	239	48	35	125	150	30	493	440	348[c]

a. United States average consumption figures include several companies which are not included in division averages because no divisional breakout could be made.
b. Not available.
c. Statistical base for this datapoint is not as broad as for others.

TABLE 11-8
NUMBER OF OCCUPIED HOUSEHOLDS BY TYPE OF FUEL USED FOR WATER HEATING AND CLOTHES DRYING, AND BY CENSUS REGION, 1982

(Millions of Households)

Region	Total	Gas	Electricity	Oil[a]	Other[b]/None
Water Heating					
United States	**83.8**	**47.1**	**26.6**	**5.7**	**4.4**
Northeast	18.0	8.7	3.7	5.0	.6
Midwest[c]	21.2	14.7	5.5	.1	.9
South	27.9	12.4	13.2	.4	1.9
West	16.4	11.3	4.2	.1	.8
Clothes Drying					
United States	**83.8**	**11.3**	**37.9**	**e**	**34.6**
Northeast	18.0	2.5	6.9	e	8.6
Midwest[c]	21.4	4.0	9.7	e	7.7
South	28.1	2.2	14.2	e	11.7
West	16.5	2.6	7.2	e	6.7

NUMBER OF OCCUPIED HOUSEHOLDS BY TYPE OF FUEL USED FOR WATER HEATING AND CLOTHES DRYING, AND BY CENSUS REGION, 1984

(Millions of Households)

Region	Total	Gas	Electricity	Oil[a]	Other[b]/None
Water Heating					
United States	**86.3**	**46.9**	**28.9**	**5.7**	**4.8**
Northeast	18.1	8.5	4.0	5.1	.5
Midwest[c]	21.4	15.2	5.0	d	1.2
South	29.0	11.7	15.4	2	1.7
West	17.0	11.5	4.5	d	1.0
Clothes Drying					
United States	**86.3**	**12.6**	**39.6**	**e**	**34.1**
Northeast	18.3	2.9	7.6	e	7.8
Midwest[c]	21.7	4.2	9.6	e	7.9
South	29.3	2.7	14.7	e	11.9
West	17.2	2.7	7.7	e	6.8

a. Oil includes kerosene.
b. Other includes LP gas, coal, wood and solar.
c. Formerly North Central.
d. Data withheld because of a large variance.
e. Not applicable.
Source: U.S. Department of Energy, Energy Information Administration, *Residential Energy Consumption Survey: Housing Characteristics.*

SECTION 12
INCOME ACCOUNTS

	1986	% Change 86/85
Total Operating Revenues		
(Millions)		
Total Industry	$80,971	−22.1
Distribution	18,675	−13.2
Transmission	33,887	−25.9
Integrated	12,018	−30.9
Combination	16,391	−15.1
Net Income		
(Millions)		
Total Industry	$ 3,380	−10.7
Distribution	747	−10.1
Transmission	1,327	−24.5
Integrated	546	+15.9
Combination	760	+ 4.8

TABLE 12-1
COMPOSITE INCOME ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
TOTAL INDUSTRY[a], 1960–1986

(Millions)

	1960	1965	1970	1975	1980	1985	1986
Total Operating Revenues	$8,696	$11,525	$16,380	$30,550	$85,918	$103,945	$ 80,971
Operation Expenses	5,689	7,657	11,205	22,254	73,288	86,944	64,368
Maintenance Expenses	262	316	431	703	1,220	1,628	1,685
Total Operation and Maintenance Expenses	5,951	7,973	11,636	22,957	74,508	88,572	66,053
Depreciation, Retirements, Depletion, etc.	578	798	1,101	1,760	2,434	3,158	3,306
Federal Income Taxes[b]	540	633	605	965	1,369	2,282	1,757
Provision for Deferred Federal Income Taxes				465	1,949	2,206	2,615
Portion of Current Federal Income Taxes Provided For in Prior Years	79	45	34	(252)	(1,406)	(1,676)	(1,616)
Investment Tax Credit Adjustment	b	b	b	130	213	238	4
Other Federal Taxes	22	27	55	109	202	355	369
State Income Taxes	23	26	46	116	200	314	316
Other State and Local Taxes	394	561	829	1,230	2,320	2,871	2,664
Total Taxes	1,058	1,292	1,569	2,763	4,847	6,590	6,109
Total Operating Expenses	7,587	10,063	14,306	27,480	81,789	98,320	75,468
Operating Income	1,109	1,462	2,074	3,070	4,129	5,625	5,503
Other Operating Income	3	7	12	21	23	140	230
Allowance for Funds Used During Construction	25	34	73	130	319	265	203
Utility Operating Income	1,137	1,503	2,159	3,221	4,471	6,030	5,936
Other Income (Non-Operating) (Net)[c]	110	157	298	916[d]	2,458[d]	1,606[d]	1,135
Income Before Interest Charges	1,247	1,660	2,457	4,137[d]	6,929[d]	7,636[d]	7,071
Interest on Long-Term Debt	374	499	867	1,423	1,961	2,847	2,827
Amortization of Debt Disc. Exp. and Premium	2	5	9	12	15	25	70
Other Interest Expense (Net)	41	49	154	203	622	724	832
Total Interest Charges	417	553	1,030	1,638	2,598	3,596	3,729
Net Income Before Extraordinary Items	e	e	e	2,499[d]	4,331[d]	4,039[d]	3,342[d]
Extraordinary Items, Less Taxes	c	c	c	3	(137)	(255)	38
Net Income	830	1,107	1,427	2,502[d]	4,194[d]	3,785[d]	3,380[d]
Preferred Dividends	69	78	129	184	296	430	370
Common Dividends	512	703	877	1,325	2,268	3,630	3,512
Note:							
Number of Companies Reporting[f]	310	304	291	204	201	184	176
Op. Rev. of Companies Reporting (Millions)	$8,112	$10,751	$15,776	$29,057	$79,896	$ 94,935	$ 72,594

a. For combination companies, only gas operations are included.
b. "Investment Tax Credit Adjustment" included in "Federal Income Taxes" prior to 1971.
c. "Extraordinary Items" included in "Other Income (Non-Operating) (Net)" prior to 1971.
d. Not comparable with prior years due to a 1973 Federal Power Commission ruling requiring adoption of the equity method in reporting earnings of subsidiaries.
e. Not available.
f. Financial data of report companies expanded to represent total industry on the basis of operating revenues. As of 1971 total number of sample companies limited to companies with operating revenues over $3,000,000.

Note: Data not directly comparable from year to year due to acquisitions and mergers. See page ix.

TABLE 12-2
COMPOSITE INCOME ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
DISTRIBUTION COMPANIES, 1980–1986

(Millions)

	1980	1981	1982	1983	1984	1985	1986
Total Operating Revenues	$14,013	$12,726	$14,653	$16,743	$17,366	$21,510	$18,675
Operation Expenses	11,539	10,727	12,523	14,064	14,370	17,387	14,627
Maintenance Expenses	252	206	217	271	294	420	442
Total Operation and Maintenance Expenses	11,791	10,933	12,740	14,335	14,664	17,807	15,069
Depreciation, Retirements, Depletion, etc.	336	292	314	372	397	571	637
Federal Income Taxes	193	106	123	176	388	345	433
Provision for Deferred Federal Income Taxes	97	112	144	214	139	250	224
Portion of Current Federal Income Taxes Provided For in Prior Years	(42)	(34)	(69)	(70)	(120)	(68)	(98)
Investment Tax Credit Adjustment	53	41	36	35	40	71	5
Other Federal Taxes	50	46	52	62	70	97	99
State Income Taxes	33	32	33	44	47	65	64
Other State and Local Taxes	752	555	624	774	837	1,122	1,026
Total Taxes	1,136	858	943	1,235	1,401	1,882	1,753
Total Operating Expenses	13,263	12,083	13,997	15,942	16,462	20,260	17,459
Operating Income	750	643	656	801	904	1,250	1,216
Other Operating Income	3	2	2	2	3	4	2
Allowance for Funds Used During Construction	8	17	16	12	11	9	9
Utility Operating Income	761	662	674	815	918	1,263	1,227
Other Income (Non-Operating) (Net)	50	51	76	91	94	121	(23)
Income Before Interest Charges	811	713	750	906	1,012	1,384	1,204
Interest on Long-Term Debt	279	248	297	323	327	456	463
Amortization of Debt Disc. Exp. and Premium	2	2	2	3	4	5	7
Other Intererst Expense (Net)	78	104	80	60	54	93	94
Total Interest Charges	359	354	379	386	385	554	564
Net Income Before Extraordinary Items	452	359	371	520	627	829	640
Extraordinary Items, Less Taxes	1	2	2	a	a	2	107
Net Income	453	361	373	521	627	831	747
Preferred Dividends	30	22	22	31	31	44	39
Common Dividends	330	246	257	329	400	640	711
Note:							
Number of Companies Reporting	56	52	52	53	53	65	60
Op. Rev. of Companies Reporting (Millions)	$12,959	$11,699	$13,407	$15,395	$15,659	$19,424	$16,616

a. Less than $500,000.
( ): Denotes negative.
Note: Data not directly comparable from year to year due to acquisitions and mergers. See page ix.

TABLE 12-3
COMPOSITE INCOME ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
TRANSMISSION COMPANIES, 1960–1986

(Millions)

	1960	1965	1970	1975	1980	1985	1986
Total Operating Revenues	3,190	$4,088	$5,928	$11,898	$41,604	$45,738	$33,887
Operation Expenses	2,031	2,747	4,094	8,463	36,075	39,635	27,385
Maintenance Expenses	64	78	109	187	405	523	593
Total Operation and Maintenance Expenses	2,095	2,825	4,203	8,650	36,480	40,158	27,978
Depreciation, Retirements, Depletion, etc.	284	357	509	896	1,238	1,449	1,677
Federal Income Taxes[a]	163	212	200	646	846	1,103	869
Provision for Deferred Federal Income Taxes				246	1,421	1,399	1,596
Portion of Current Federal Income Taxes Provided For in Prior Years	56	13	(9)	(221)	(1,069)	(1,189)	(1,158)
Investment Tax Credit Adjustment	a	a	a	48	77	49	(9)
Other Federal Taxes	4	5	11	22	52	92	101
State Income Taxes	8	8	12	52	92	101	126
Other State and Local Taxes	88	117	162	221	572	425	407
Total Taxes	319	355	376	1,014	1,991	1,980	1,932
Total Operating Expenses	2,698	3,537	5,088	10,560	39,709	43,587	31,587
Operating Income	492	551	840	1,338	1,895	2,151	2,300
Other Operating Income	b	b	b	b	3	125	223
Allowance for Funds Used During Construction	11	18	24	38	126	44	36
Utility Operating Income	503	569	864	1,376	2,024	2,320	2,559
Other Income (Non-Operating) (Net)[c]	32	70	190	640[d]	1,755[d]	1,238[d]	892[d]
Income Before Interest Charges	535	639	1,054	2,016[d]	3,779[d]	3,558[d]	3,451[d]
Interest on Long-Term Debt	195	237	414	643	979	1,346	1,483
Amortization of Debt Disc. Exp. and Premium	2	4	7	7	8	9	54
Other Interest Expense (Net)	21	20	70	110	325	317	534
Total Interest Charges	218	261	491	760	1,312	1,672	2,071
Net Income Before Extraordinary Items	e	e	e	1,256[d]	2,467[d]	1,886[d]	1,380[d]
Extraordinary Items, Less Taxes	c	c	c	0	(141)	(129)	(53)
Net Income	317	378	563	1,256[d]	2,326[d]	1,757[d]	1,327[d]
Preferred Dividends	33	38	79	79	142	164	182
Common Dividends	184	258	351	600	1,229	1,984	1,917
Note:							
Number of Companies Reporting	48	47	39	33	39	38	38
Op. Rev. of Companies Reporting (Millions)	$3,092	$3,999	$5,729	$11,192	$37,971	$41,705	$30,644

a. "Investment Tax Credit Adjustment" included in "Federal Income Taxes" prior to 1971.
b. Less than $500,000.
c. "Extraordinary Items" included in "Other Income (Non-Operating) (Net)" prior to 1971.
d. Not comparable with prior years due to 1973 Federal Power Commission ruling requiring adoption of the equity method in reporting earings of subsidiaries.
e. Not available.
( ): Denotes negative.
Note: Data not directly comparable from year to year due to acquisitions and mergers. See page ix.

TABLE 12-4
COMPOSITE INCOME ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
INTEGRATED COMPANIES, 1980-1986

(Millions)

	1980	1981	1982	1983	1984	1985	1986
Total Operating Revenues	$17,300	$23,612	$27,481	$27,125	$25,599	$17,396	$12,018
Operation Expenses	14,870	20,076	23,399	22,806	21,043	14,281	9,543
Maintenance Expenses	285	417	455	422	432	306	256
Total Operation and Maintenance Expenses	15,155	20,493	23,854	23,228	21,475	14,587	9,799
Depreciation, Retirements, Depletion, etc.	490	617	671	704	682	571	362
Federal Income Taxes	261	220	160	506	714	441	164
Provision for Deferred Federal Income Taxes	221	350	538	382	156	238	335
Portion of Current Federal Income Taxes Provided For in Prior Years	(194)	(155)	(276)	(258)	(171)	(204)	(71)
Investment Tax Credit Adjustment	47	78	125	84	78	57	(6)
Other Federal Taxes	53	86	103	100	105	79	72
State Income Taxes	50	60	49	95	106	69	54
Other State and Local Taxes	449	781	930	867	905	511	445
Total Taxes	887	1,420	1,629	1,776	1,893	1,191	993
Total Operating Expenses	16,532	22,530	26,154	25,708	24,050	16,349	11,154
Operating Income	768	1,082	1,327	1,417	1,549	1,047	864
Other Operating Income	17	22	21	18	13	11	5
Allowance for Funds Used During Construction	17	18	21	10	9	7	6
Utility Operating Income	802	1,122	1,369	1,445	1,571	1,065	875
Other Income (Non-Operating) (Net)	582	771	606	457	419	162	158
Income Before Interest Charges	1,384	1,893	1,975	1,902	1,990	1,227	1,033
Interest on Long-Term Debt	375	501	606	635	634	501	338
Amortization of Debt Disc. Exp. and Premium	3	3	4	4	5	6	3
Other Interest Expense (Net)	163	239	231	140	119	274	160
Total Interest Charges	541	743	841	779	758	781	501
Net Income Before Extraordinary Items	843	1,150	1,134	1,123	1,232	446	532
Extraordinary Items, Less Taxes	a	(9)	a	a	(30)	25	14
Net Income	843	1,141	1,134	1,123	1,202	471	546
Preferred Dividends	35	49	58	78	127	99	38
Common Dividends	424	618	712	774	846	575	423
Note:							
Number of Companies Reporting	45	48	46	43	42	26	24
Op. Rev. of Companies Reporting (Millions)	$16,020	$22,360	$25,015	$24,309	$22,394	$14,743	$9,074

a. Less than $500,000.
( ): Denotes negative.
Note: Data not directly comparable from year to year due to acquisitions and mergers. See page ix.

TABLE 12-5
COMPOSITE INCOME ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
COMBINATION COMPANIES, 1980-1986

(Millions)

	1980	1981	1982	1983	1984	1985	1986
Gas Operations							
Total Operating Revenues	$13,001	$15,067	$17,692	$18,651	$19,207	$19,301	$16,391
Operation Expenses	10,804	12,636	14,778	15,567	15,692	15,641	12,813
Maintenance Expenses	278	319	339	346	354	379	394
Total Operation and Maintenance Expenses	11,082	12,955	15,117	15,913	16,046	16,020	13,207
Depreciation, Retirements, Depletion, etc.	370	398	443	480	522	567	630
Federal Income Taxes	69	126	145	116	513	393	291
Provision for Deferred Federal Income Taxes	210	218	254	416	250	319	460
Portion of Current Federal Income Taxes Provided For in Prior Years	(101)	(159)	(97)	(220)	(309)	(215)	(289)
Investment Tax Credit Adjustment	36	38	72	76	95	61	14
Other Federal Taxes	47	62	69	74	82	87	97
State Income Taxes	25	20	55	63	82	79	72
Other State and Local Taxes	547	650	729	790	786	813	786
Total Taxes	833	955	1,227	1,315	1,499	1,537	1,431
Total Operating Expenses	12,285	14,308	16,787	17,708	18,067	18,124	15,268
Operating Income[a]	716	759	905	943	1,140	1,177	1,123
Total Operations							
Total Operating Revenues	$43,822	$51,085	$56,541	$60,883	$62,035	$63,647	$58,917
Operation Expenses	28,511	33,318	35,305	36,987	36,616	36,773	31,748
Maintenance Expenses	2,313	2,561	2,939	3,195	3,852	3,589	3,438
Total Operation and Maintenance Expenses	30,824	35,879	38,244	40,092	39,916	40,362	35,186
Depreciation, Retirements, Depletion, etc.	2,605	2,867	3,299	3,606	3,852	4,210	4,334
Federal Income Taxes	541	811	1,544	1,324	1,864	1,972	2,475
Provision for Deferred Federal Income Taxes	1,369	1,534	1,557	2,431	2,502	2,477	3,180
Portion of Current Federal Income Taxes Provided For in Prior Years	(749)	(915)	(1,080)	(981)	(1,129)	(884)	(1,136)
Investment Tax Credit Adjustment	305	478	900	847	925	790	40
Other Federal Taxes	228	296	331	360	380	401	410
State Income Taxes	166	199	365	432	538	466	489
Other State and Local Taxes	2,911	3,266	3,581	3,998	4,014	4,213	4,231
Total Taxes	4,771	5,669	7,198	8,411	9,095	9,435	9,689
Total Operating Expenses	38,200	44,415	48,741	52,109	52,863	54,007	49,208
Operating Income	5,622	6,670	7,800	8,774	9,172	9,640	9,708
Other Operating Income	b	1	2	1	1	1	31
Allowance for Funds Used During Construction	1,569	1,833	2,247	2,975	2,568	2,578	1,937
Utility Operating Income	7,191	8,504	10,049	11,750	11,741	12,219	11,676
Other Income (Non-Operating) (Net)	496	605	625	478	745	968	1,158
Income Before Interest Charges	7,687	9,109	10,674	12,228	12,486	13,187	12,834
Interest on Long-Term Debt	3,039	3,544	4,052	4,615	4,718	5,155	4,971
Amortization of Debt Disc. Exp. and Premium	15	21	28	35	21	53	62
Other Interest Expense (Net)	453	620	567	410	383	302	322
Total Interest Charges	3,507	4,185	4,647	5,060	5,122	5,510	5,355
Net Income Before Extraordinary Items	4,180	4,924	6,027	7,168	7,364	7,677	7,479
Extraordinary Items, Less Taxes	11	1	41	9	15	749	(206)
Net Income	4,191	4,925	6,068	7,177	7,379	6,928	7,273
Preferred Dividends	801	891	986	1,073	1,022	1,006	914
Common Dividends	2,575	2,957	3,526	4,188	4,045	4,388	4,425
Note:							
Number of Companies Reporting	61	60	59	57	54	55	54
Total Op. Revenues of Companies Reporting (Millions)	$43,636	$50,989	$55,901	$60,231	$60,980	$62,862	$58,444
Gas Revenues of Companies Reporting (Millions)	$12,946	$15,039	$17,492	$18,479	$18,880	$19,063	$16,260

a. Includes "Other Operating Income" which was less than $500,000 in each year.
b. Less than $500,000.
( ): Denotes negative.
Note: Data not directly comparable from year to year due to acquisitions and mergers. See page ix.

INCOME ACCOUNTS

TABLE 12-6
INVESTOR-OWNED GAS UTILITY INDUSTRY
GAS OPERATION AND MAINTENANCE EXPENSES
BY TYPE OF COMPANY, 1985-1986

(Millions)

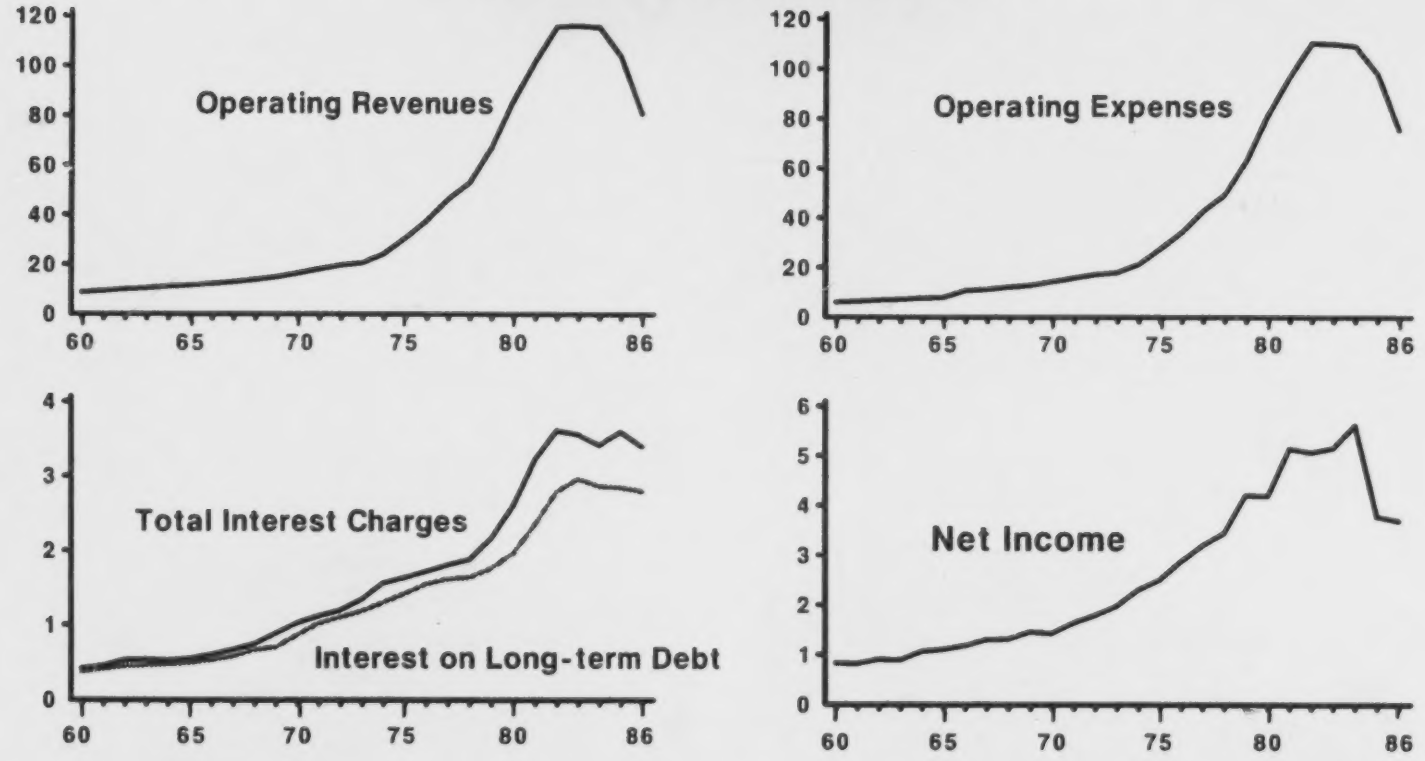
Total Industry Type of Expense	1985 Operation	1985 Maintenance	1986 Operation	1986 Maintenance
Purchased Gas Cost and Production Exp.	$74,482	$ 0	$52,388	$ 0
Other Production and Purch. Exp. and Adjustments	928	181	720	155
Production and Purchases, Total	75,410	181	53,108	155
Storage	603	86	593	90
Transmission	3,492	457	2,973	488
Distribution	1,331	836	1,397	873
Customer Accounts	1,470	a	1,504	a
Sales	160	a	176	a
Administrative and General	4,008	70	4,199	78
Customer Service	468	0	418	0
Total	86,942	1,630	64,368	1,685
Distribution Companies Type of Expense	Operation	Maintenance	Operation	Maintenance
Purchased Gas Cost and Production Exp.	$14,751	$ 0	$11,905	$ 0
Other Production and Purch. Exp. and Adjustments	187	19	175	17
Production and Purchases, Total	14,938	19	12,080	17
Storage	46	13	45	13
Transmission	34	13	35	12
Distribution	539	355	563	373
Customer Accounts	665	a	663	a
Sales	90	a	96	a
Administrative and General	988	20	1,053	26
Customer Service	87	0	92	0
Total	17,387	420	14,627	442
Transmission Companies Type of Expense	Operation	Maintenance	Operation	Maintenance
Purchased Gas Cost and Production Exp.	$34,484	$ 0	$22,318	$ 0
Other Production and Purch. Exp. and Adjustments	389	111	339	113
Production and Purchases, Total	34,873	111	22,657	113
Storage	391	35	407	42
Transmission	2,887	368	2,662	426
Distribution	a	a	a	a
Customer Accounts	10	0	14	0
Sales	19	0	27	0
Administrative and General	1,447	12	1,609	12
Customer Service	5	0	9	0
Total	39,632	526	27,385	593
Integrated Companies Type of Expense	Operation	Maintenance	Operation	Maintenance
Purchased Gas Cost and Production Exp.	$11,887	$ 0	$ 7,776	$ 0
Other Production and Purch. Exp. and Adjustments	162	31	22	8
Production and Purchases, Total	12,049	31	7,798	8
Storage	93	26	68	21
Transmission	477	54	168	26
Distribution	328	181	328	186
Customer Accounts	337	a	344	0
Sales	36	a	34	0
Administrative and General	777	14	658	15
Customer Service	184	a	145	0
Total	14,281	306	9,543	256
Combination Companies Type of Expense	Operation	Maintenance	Operation	Maintenance
Purchased Gas Cost and Production Exp.	$13,360	$ 0	$10,389	$ 0
Other Production and Purch. Exp. and Adjustments	190	20	184	17
Production and Purchases, Total	13,550	20	10,573	17
Storage	73	12	73	14
Transmission	94	22	108	24
Distribution	464	300	506	314
Customer Accounts	458	0	483	0
Sales	15	0	19	0
Administrative and General	796	24	879	25
Customer Service	192	0	172	0
Total	15,642	378	12,813	394

a. Less than $500,000.
Note: See note previous page.

SECTION 13
BALANCE SHEETS

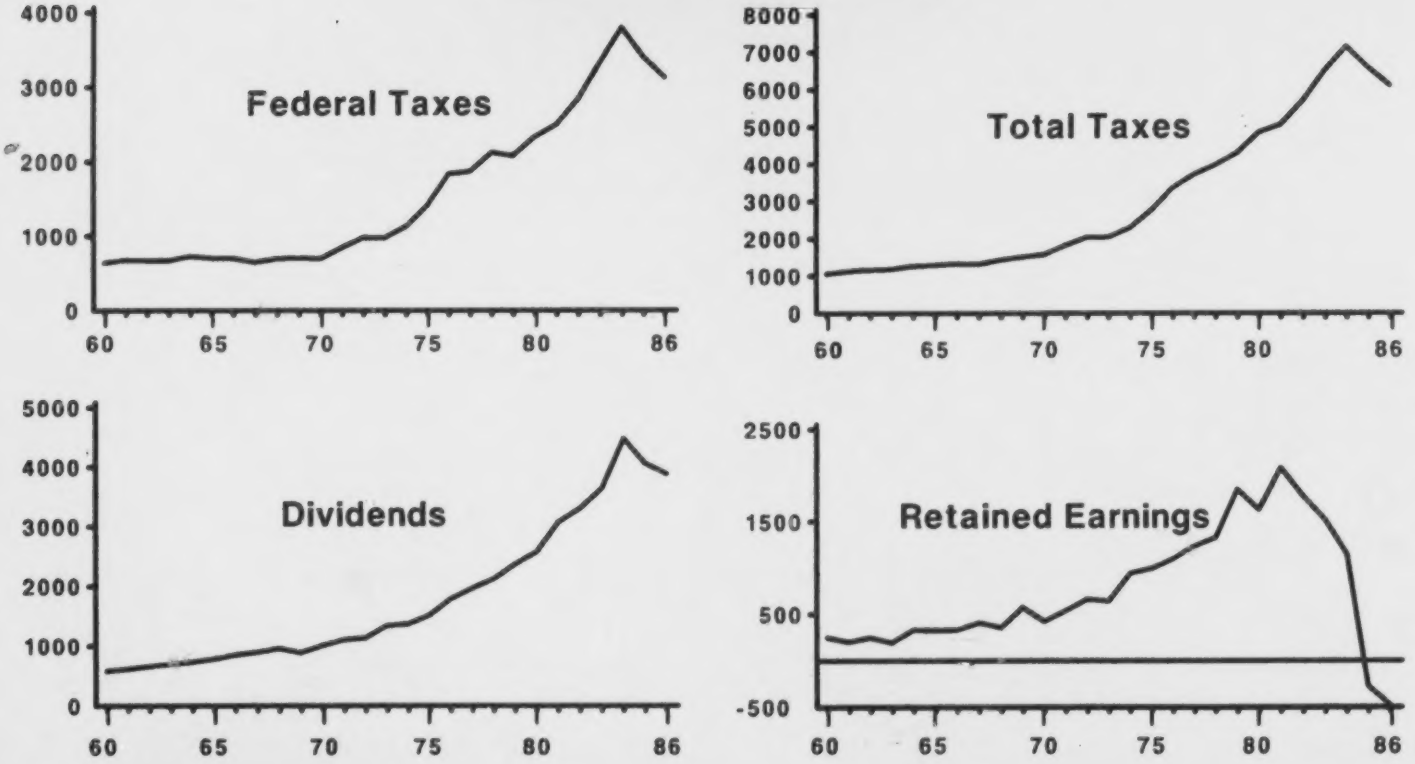
	1986	% Change 86/85
Gas Utility Plant		
(Millions)		
Total Industry	$89,962	+ 3.9
Distribution	18,499	+ 6.4
Transmission	42,668	+ 9.2
Integrated	11,595	−18.4
Combination	17,200	+ 8.3
Total Common Equity		
(Millions)		
Total Industry	$36,833	+ 2.1
Distribution	5,868	+ 4.3
Transmission	21,178	+12.6
Integrated	4,324	−34.8
Combination	5,463	+ 8.8

GAS UTILITY INDUSTRY COMPOSITE INCOME ACCOUNTS (INVESTOR-OWNED) BILLIONS OF DOLLARS



REFERENCE: TABLE 12-1

GAS UTILITY INDUSTRY DISPOSITION OF NET INCOME AND TAXES
(INVESTOR-OWNED)
MILLIONS OF DOLLARS



REFERENCE: TABLE 12-1

BALANCE SHEETS

TABLE 13-1
COMPOSITE BALANCE SHEET ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
TOTAL INDUSTRY, 1960–1986

(Millions)

	1960	1965	1970	1975	1980	1985	1986
ASSETS							
Total Gas Utility Plant	$20,835	$28,205	$38,541	$49,384	$67,071	$86,547	$89,962
Less Accum. Prov. for Depr. and Amort.	4,570	7,205	10,696	16,779	26,162	36,377	36,804
Net Gas Utility Plant (Total)	16,265	21,000	27,845	32,605	40,909	50,170	53,158
Gas Stored Underground (Non-Current)	0	0	0	0	0	1,574[a]	1,705
Investment and Fund Accounts	1,380	1,885	3,024	9,198[b]	15,530[b]	23,871[b]	21,828
Current and Accrued Assets	2,185	2,545	3,674	7,543	17,243	24,771	21,477
Deferred Debits[c]	170	210	386	940	2,169	4,092	5,843
Total Assets	20,000	25,640	34,929	50,286[b]	75,851[b]	104,478[b]	104,011
LIABILITIES							
Common Stock	3,540	4,360	4,727	5,803	6,968	7,739	7,943
Retained Earnings	1,880	2,715	4,230	7,911[b]	13,122[b]	18,893[b]	16,346
Other Paid-in Capital[d]	1,045	1,390	2,063	3,245	5,597	9,450	12,544
Total Common Equity	6,465	8,465	11,020	16,959[b]	25,687[b]	36,082[b]	36,833
Preferred Stock	1,345	1,540	1,945	2,541	3,628	3,435	3,068
Total Capital Stock	7,810	10,005	12,965	19,500[b]	29,315[b]	39,517[b]	39,901
Bonds	6,265	7,525	9,248	10,493	9,574	9,378	9,931
Debentures	1,445	2,560	4,274	5,174	5,819	7,739	6,945
Other Long-Term Debt	1,420	1,430	2,159	3,877	6,674	9,165	9,914
Total Long-Term Debt	9,130	11,515	15,681	19,544	22,067	26,282	26,790
Total Capitalization	16,940	21,520	28,646	39,044[b]	51,382[b]	65,799[b]	66,691
Current and Accrued Liabilities	2,420	3,035	4,832	8,158	18,119	26,125	23,815
Deferred Credits	85	215	370	752	1,683	3,779	3,997
Non-Current Liabilities[e]	110	55	48	194	428	879	1,000
Contributions in Aid of Construction	95	155	245	86	90	127	143
Accumulated Deferred Income Taxes[f]	350	660	788	2,052	4,149	7,769	8,365
Total Liabilities	20,000	25,640	34,929	50,286[b]	75,851[b]	104,478	104,011

a. First year this category is broken out.
b. Not comparable with 1970 and prior years due to a 1973 Federal Power Commission ruling requiring adoption of the equity method in reporting earnings of subsidiaries.
c. Includes "Capital Stock Discount and Expense" and "Reacquired Securities."
d. Includes accounts formerly detailed in "Premiums, Assessments, etc." and "Capital Surplus."
e. Formerly called "Operating Reserves."
f. Includes "Reserves for Deferred Income Taxes."

Note: Data not directly comparable from year to year due to acquisitions and mergers. See page ix.

TABLE 13-2
COMPOSITE BALANCE SHEET ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
DISTRIBUTION COMPANIES, 1980-1986

(Millions)

	1980	1981	1982	1983	1984	1985	1986
ASSETS							
Total Gas Utility Plant	$10,990	$9,188	$9,755	$11,042	$11,980	$17,383	$18,499
Less Accum. Prov. for Depr. and Amort.	3,174	2,799	3,067	3,558	3,971	5,631	5,965
Net Gas Utility Plant (Total)	7,816	6,389	6,688	7,484	8,009	11,752	12,534
Gas Stored Underground (Non-Current)	0	0	0	0	0	124[a]	135
Investment and Fund Accounts	459	454	523	564	659	1,136	1,080
Current and Accrued Assets	3,086	2,877	3,043	3,890	3,317	4,864	4,158
Deferred Debits	129	105	192	214	180	334	290
Total Assets	11,490	9,825	10,446	12,152	12,165	18,210	18,297
LIABILITIES							
Common Stock	1,119	837	925	974	805	1,205	1,278
Retained Earnings	1,630	1,349	1,425	1,669	1,921	2,917	2,811
Other Paid-in Capital	556	554	623	860	1,076	1,502	1,779
Total Common Equity	3,305	2,740	2,973	3,503	3,802	5,624	5,868
Preferred Stock378	412	257	268	338	336	441	386
Total Capital Stock	3,717	2,997	3,241	3,841	4,138	6,065	6,254
Bonds	2,210	1,686	1,666	1,928	1,950	2,756	3,033
Debentures	98	126	123	309	345	537	817
Other Long-Term Debt	848	764	979	795	839	1,171	1,221
Total Long-Term Debt	3,156	2,576	2,768	3,032	3,134	4,464	5,071
Total Capitalization	6,873	5,573	6,009	6,873	7,272	10,529	11,325
Current and Accrued Liabilities	3,384	3,168	3,201	3,767	3,294	5,054	4,284
Deferred Credits	461	407	470	570	642	969	966
Non-Current Liabilities[b]	28	19	18	22	28	54	40
Contributions in Aid of Construction	65	57	60	62	67	116	124
Accumulated Deferred Income Taxes[c]	679	601	688	858	862	1,488	1,558
Total Liabilities	11,490	9,825	10,446	12,152	12,165	18,210	18,297

a. First year this category is broken out.
b. Formerly called "Operating Reserves."
c. Includes "Reserves for Deferred Income Taxes."
Note: Data not directly comparable from year to year due to acquisitions and mergers. See page ix.

TABLE 13-3
COMPOSITE BALANCE SHEET ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
TRANSMISSION COMPANIES, 1960-1986

(Millions)

	1960	1965	1970	1975	1980	1985	1986
ASSETS							
Total Gas Utility Plant	$8,960	$11,505	$16,363	$20,351	$30,334	$39,076	$42,668
Less Accum. Prov. for Depr. and Amort.	2,040	3,375	5,311	8,636	14,361	21,126	22,289
Net Gas Utility Plant (Total)	6,920	8,130	11,052	11,714	15,973	17,950	20,379
Gas Stored Underground (Non-Current)	0	0	0	0	0	868[a]	1,055
Investment and Fund Accounts	870	1,060	1,889	6,791[b]	11,998[b]	14,914[b]	18,023
Current and Accrued Assets	840	950	1,384	3,459	8,432	14,494	12,526
Deferred Debits[c]	65	100	192	516	1,371	2,311	3,979
Total Assets	8,695	10,240	14,517	22,480[b]	37,774[b]	50,537[b]	55,962
LIABILITIES							
Common Stock	1,105	1,225	1,477	1,984	2,610	2,694	3,194
Retained Earnings	665	815	1,430	4,010[b]	7,984[b]	11,102[b]	9,799
Other Paid-in Capital[d]	570	770	1,233	1,891	3,414	5,008	8,185
Total Common Equity	2,340	2,810	4,140	7,885[b]	14,008[b]	18,804[b]	21,178
Preferred Stock	640	715	1,019	1,012	1,734	1,361	1,150
Total Capital Stock	2,980	3,525	5,159	8,897[b]	15,742[b]	20,165[b]	22,328
Bonds	3,030	3,060	3,458	3,125	2,398	900	1,234
Debentures	770	1,545	2,569	3,124	3,732	5,529	4,805
Other Long-Term Debt	590	420	841	2,167	4,114	5,117	5,945
Total Long-Term Debt	4,390	5,025	6,868	8,415	10,244	11,546	11,984
Total Capitalization	7,370	8,550	12,027	17,312[b]	25,986[b]	31,711[b]	34,312
Current and Accrued Liabilities	1,005	1,200	1,974	3,802	9,067	13,028	14,505
Deferred Credits	10	65	147	295	495	998	1,611
Non-Current Liabilities[e]	65	15	14	113	174	580	810
Contributions in Aid of Construction	15	20	14	0	0	5	7
Accumulated Deferred Income Taxes[f]	230	390	341	959	2,052	4,215	4,717
Total Liabilities	8,695	10,240	14,517	22,480[b]	37,774[b]	50,537[b]	55,962

a. First year this category is broken out.
b. Not comparable with 1970 and prior years due to a 1973 Federal Power Commission ruling requiring adoption of the equity method in reporting earnings of subsidiaries.
c. Includes "Capital Stock Discount and Expense."
d. Includes accounts formerly detailed in "Premiums, Assessments, etc." and "Capital Surplus."
e. Formerly called "Operating Reserves."
f. Includes "Reserves for Deferred Income Taxes."

Note: Data not directly comparable from year to year due to acquisitions and mergers. See page ix.

TABLE 13-4
COMPOSITE BALANCE SHEET ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
INTEGRATED COMPANIES, 1980-1986

(Millions)

	1980	1981	1982	1983	1984	1985	1986
ASSETS							
Total Gas Utility Plant	$13,756	$17,776	$19,190	$19,284	$19,033	$14,203	$11,595
Less Accum. Prov. for Depr. and Amort.	4,913	6,102	6,631	6,902	6,875	5,743	4,168
Net Gas Utility Plant (Total)	8,843	11,674	12,559	12,382	12,158	8,460	7,427
Gas Stored Underground (Non-Current)	0	0	0	0	0	442[a]	367
Investment and Fund Accounts	2,856	3,702	4,833	5,192	6,057	7,354	2,172
Current and Accrued Assets	4,456	5,127	5,975	6,371	5,315	3,726	3,062
Deferred Debits	453	517	773	628	447	538	371
Total Assets	16,608	21,020	24,140	24,573	23,977	20,520	13,399
LIABILITIES							
Common Stock	1,916	2,293	2,232	2,351	2,174	1,808	1,407
Retained Earnings	2,440	3,420	4,107	4,056	4,252	3,058	1,683
Other Paid-in Capital	906	1,120	1,255	1,780	1,903	1,766	1,234
Total Common Equity	5,262	6,833	7,594	8,187	8,329	6,632	4,324
Preferred Stock	423	606	722	690	770	439	401
Total Capital Stock	5,685	7,439	8,316	8,877	9,099	7,071	4,725
Bonds	1,605	2,247	2,331	2,386	2,307	1,352	1,147
Debentures	1,891	2,194	2,448	2,526	2,546	1,537	1,110
Other Long-Term Debt	1,329	1,429	1,810	1,611	1,538	1,940	1,706
Total Long-Term Debt	4,825	5,870	6,589	6,523	6,391	4,829	3,963
Total Capitalization	10,510	13,309	14,905	15,400	15,490	11,900	8,688
Current and Accrued Liabilities	4,454	5,627	6,625	6,516	5,731	6,401	3,273
Deferred Credits	381	561	785	726	938	982	558
Non-Current Liabilities[b]	220	104	283	83	83	133	22
Contributions in Aid of Construction	21	37	43	51	48	c	c
Accumulated Deferred Income Taxes[d]	1,022	1,382	1,499	1,797	1,687	1,104	858
Total Liabilities	16,608	21,020	24,140	24,573	23,977	20,520	13,399

a. First year this category is broken out.
b. Formerly called "Operating Reserves."
c. Less than $500,000.
d. Includes "Reserves for Deferred Income Taxes."
Note: Data not directly comparable from year to year due to acquisitions and mergers. See page ix.

BALANCE SHEETS

TABLE 13-5
COMPOSITE BALANCE SHEET ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
COMBINATION COMPANIES, 1980-1986

(Millions)

	1980	1981	1982	1983	1984	1985	1986
ASSETS							
Electric	$ 94,579	$103,460	$114,620	$130,259	$127,337	$107,117	$110,397
Gas	11,991	12,846	13,760	14,385	14,837	15,552	16,723
Other	3,614	3,950	4,366	4,759	5,102	5,338	6,162
Total Utility Plant	110,184	120,256	132,746	149,403	147,276	128,007	133,282
Construction Work in Progress	0	0	0	0	0	32,611[a]	26,248[a]
Less Accum. Prov. for Depr. and Amort.	24,846	27,569	30,496	33,971	35,225	38,898	40,329
Net Utility Plant	85,338	92,687	102,250	115,432	112,051	121,720	119,201
Gas Stored Underground (Non-Current)	0	0	0	0	0	140[b]	148
Investment and Fund Accounts	1,998	2,647	3,224	3,894	4,098	4,686	5,093
Current and Accrued Assets	11,659	12,562	13,556	14,615	15,923	16,921	15,919
Deferred Debits	1,983	2,597	3,284	4,474	9,335	9,124	10,161
Total Assets	100,978	110,493	122,314	138,415	141,407	152,591	150,522
LIABILITIES							
Common Stock	13,386	13,997	15,974	17,899	18,364	20,382	18,995
Retained Earnings	10,803	11,880	13,382	15,493	16,754	18,218	18,895
Other Paid-in Capital	7,301	8,686	10,047	11,777	10,887	11,780	12,396
Total Common Equity	31,490	34,483	39,403	45,169	46,005	50,380	50,286
Preferred Stock	10,719	11,244	11,903	13,234	12,258	11,980	10,413
Total Capital Stock	42,209	45,727	51,306	58,403	58,263	62,360	60,699
Bonds	34,010	35,632	38,912	42,284	41,905	43,834	41,573
Debentures	990	787	805	785	1,103	1,361	1,962
Other Long-Term Debt	3,871	4,889	5,947	8,010	8,317	9,394	9,587
Total Long-Term Debt	38,871	41,308	45,664	51,079	51,325	54,589	53,122
Total Capitalization	81,080	87,035	96,970	109,482	109,588	116,949	113,821
Current and Accrued Liabilities	12,286	14,338	14,172	14,929	15,285	16,477	16,139
Deferred Credits	3,506	4,126	5,427	6,237	7,091	8,326	7,936
Non-Current Liabilities[c]	58	67	108	113	1,644	1,123	1,177
Contribution in Aid of Construction	38	50	52	57	61	64	110
Accumulated Deferred Income Taxes[d]	4,101	4,877	5,585	7,597	7,738	9,652	11,339
Total Liabilities	100,978	110,493	122,314	138,415	141,407	152,591	150,522

a. Formerly included under the corresponding plant category.
b. First year this category is broken out.
c. Formerly called "Operating Reserves."
d. Includes "Reserves for Deferred Income Taxes."
Note: Data not directly comparable from year to year due to acquisitions and mergers. See page ix.

TABLE 13-6
TOTAL GAS UTILITY INDUSTRY PLANT BY TYPE OF COMPANY AND BY PLANT FUNCTION, 1960–1986

(Millions)

	1960	1965	1970	1975	1980	1985	1986
Total Industry							
Total Gas Utility Plant	$21,525	$29,175	$39,914	$51,004	$69,275	$88,717	$92,234
Production	2,925	3,180	3,657	4,776	8,199	10,511	8,523
Underground Storage	755	1,200	1,816	2,697	4,529	4,305	4,554
Other Storage	a	a	a	700	672	717	729
LNG	b	b	b	b	284	262	271
Transmission	9,410	12,435	17,188	20,530	25,418	33,969	35,450
Distribution	7,275	10,660	15,056	19,151	24,923	33,397	36,169
General and Intangible[c]	835	1,090	1,518	2,226	3,470	4,438	5,314
Construction Work in Progress	325	610	679	924	1,780	1,118	1,224
Total Investor-Owned Industry							
Total Gas Utility Plant	$20,835	$28,205	$38,541	$49,384	$67,071	$86,547	$89,962
Production	2,835	3,055	3,529	4,687	8,019	10,347	8,266
Underground Storage	755	1,190	1,770	2,639	4,451	4,286	4,533
Other Storage	a	a	a	648	632	617	630
LNG	b	b	b	b	273	241	250
Transmission	9,405	12,425	17,170	20,307	25,298	33,930	35,411
Distribution	6,750	9,935	13,989	18,080	23,343	31,906	34,592
General and Intangible[c]	785	1,020	1,451	2,125	3,334	4,155	5,114
Construction Work in Progress	305	580	632	896	1,721	1,065	1,166
Distribution Companies							
Total Gas Utility Plant	b	b	b	$ 8,547	$10,990	$17,383	$18,499
Production	b	b	b	387	539	656	563
Underground Storage	b	b	b	460	627	572	618
Other Storage	b	b	b	172	140	200	193
LNG	b	b	b	c	91	151	158
Transmission	b	b	b	425	338	581	618
Distribution	b	b	b	6,452	8,569	13,720	14,723
General and Intangible[c]	b	b	b	479	599	1,308	1,415
Construction Work in Progress	b	b	b	173	87	195	211
Transmission Companies							
Total Gas Utility Plant	$ 8,960	$11,505	$16,363	$20,351	$30,334	$39,076	$42,668
Production	1,430	1,570	1,842	2,650	5,098	7,204	6,465
Underground Storage	280	325	668	1,299	2,340	2,325	2,606
Other Storage	a	a	a	113	175	143	203
LNG	b	b	b	b	160	41	42
Transmission	6,880	9,040	13,238	15,322	20,194	27,400	30,564
Distribution	35	5	2	5	7	6	0
General and Intangible[c]	220	260	330	587	1,204	1,583	2,340
Construction Work in Progress	115	305	283	375	1,156	374	448
Integrated Companies							
Total Gas Utility Plant	b	b	b	$10,960	$13,756	$14,203	$11,595
Production	b	b	b	1,240	1,914	1,937	682
Underground Storage	b	b	b	531	961	916	795
Other Storage	b	b	b	62	103	85	51
LNG	b	b	b	b	14	5	6
Transmission	b	b	b	3,418	3,308	4,026	2,208
Distribution	b	b	b	4,809	6,191	6,338	6,996
General and Intangible[c]	b	b	b	748	1,029	733	705
Construction Work in Progress	b	b	b	151	236	163	152
Combination Companies							
Total Gas Utility Plant	b	b	b	$ 9,826	$11,991	$15,885	$17,200
Production	b	b	b	410	468	550	556
Underground Storage	b	b	b	348	523	473	514
Other Storage	b	b	b	301	214	189	183
LNG	b	b	b	b	8	44	44
Transmission	b	b	b	1,144	1,458	1,923	2,021
Distribution	b	b	b	6,816	8,576	11,842	12,873
General and Intangible[c]	b	b	b	310	502	531	654
Construction Work in Progress	b	b	b	197	242	333	355

a. Included in "Production."
b. Not available.
c. Includes plant acquisition adjustments and plant adjustments.
Note: Data not directly comparable from year to year due to acquisitions and mergers. See page ix.

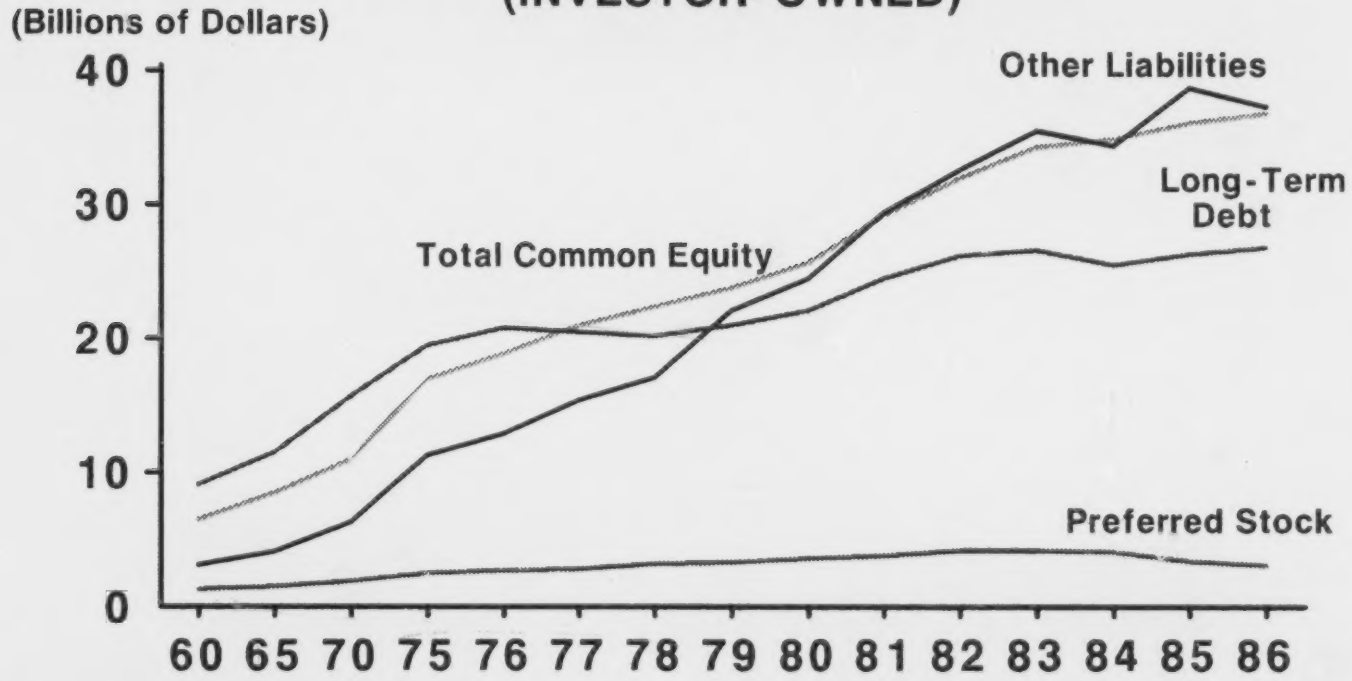
SECTION 14
ANALYTICAL RATIOS

	1986	% Change 86/85
Capitalization Represented by (%)		
Long-term Debt	40.2	+ 0.5
Preferred Stock	4.6	−11.5
Common Equity	55.2	+ 0.7

The analytical ratios in this section have been calculated on a consistent basis for all years. These ratios are considered to be an acceptable set of indicators which provide trends on the condition of the investor-owned gas utility industry. Please contact the statistics department at A.G.A. for details of the formulas used to calculate these analytical ratios.

CHART 13-1

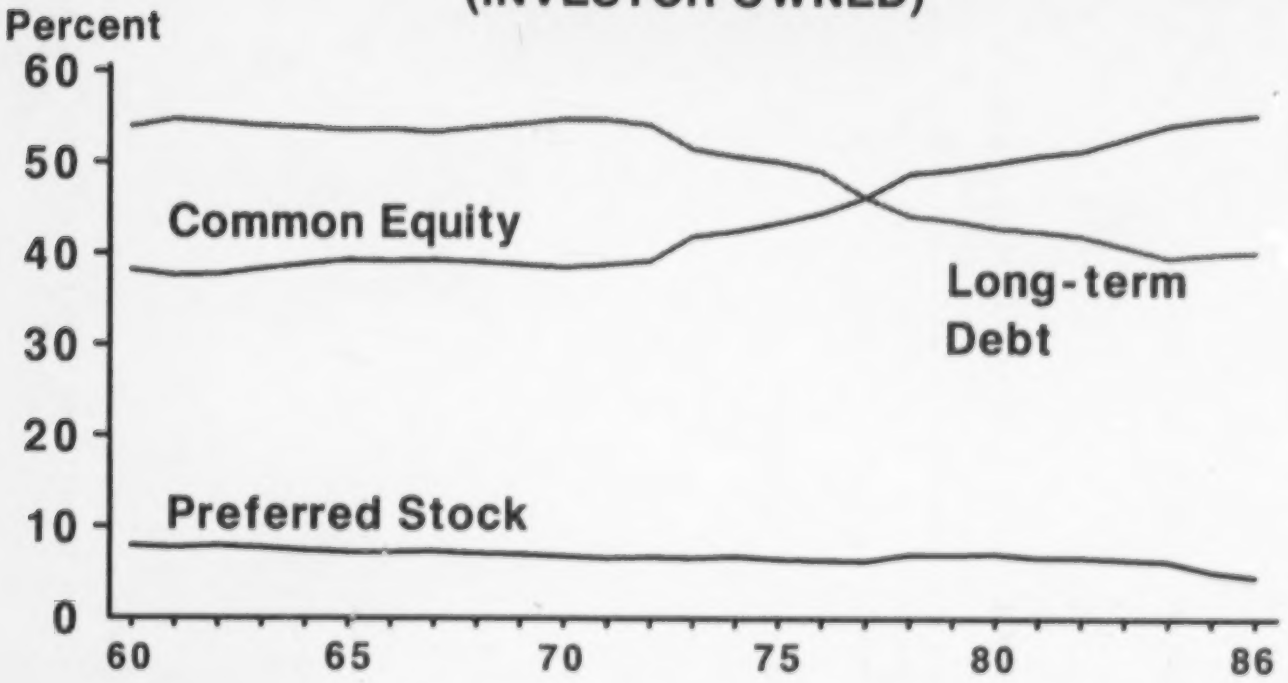
GAS UTILITY INDUSTRY INVESTMENT (INVESTOR-OWNED)



REFERENCE: TABLE 13-1

CHART 14-1

GAS UTILITY INDUSTRY TOTAL CAPITALIZATION (INVESTOR OWNED)



REFERENCE: TABLE 14-1

ANALYTICAL RATIOS

TABLE 14-1
SELECTED COMPOSITE ANALYTICAL RATIOS
INVESTOR-OWNED GAS UTILITY INDUSTRY
TOTAL INDUSTRY, 1960-1986

	1960	1965	1970	1975	1980	1985	1986
Earnings							
Utility Operating Income as % of Total Plant	5.5	5.3	5.6	6.5	6.7	7.0	6.6
Utility Operating Income as % of Net Plant	7.0	7.2	7.8	9.9	10.9	12.0	11.2
Operating Revenue as % of Total Plant	41.7	40.9	42.5	61.9	128.1	120.1	90.0
Common Dividend Payout Ratio	67.3	68.3	67.6	57.2[a]	58.2[a]	108.2[a]	116.7[a]
Return on Common Equity	11.8	12.2	11.8	13.7[a]	15.2[a]	9.3[a]	8.2[a]
Return on Average Common Equity	12.2	12.5	12.2	14.3	15.8	9.5	8.3
Return on Net Plant	4.7	4.9	4.7	7.1	9.5	6.7	5.7
Pretax Coverage of:							
Total Interest Expense[b]	4.5	4.2	3.0	3.3	3.5	3.0	2.6
Long-Term Debt Interest Expense[b]	5.0	4.7	3.6	3.8	4.6	3.8	3.5
Allowance for Funds Used During Construction as % of Net Income	3.0	3.1	5.1	5.2	7.6	7.0	6.0
Expenses							
Operating Expenses as % of Operating Revenue	87.2	87.3	87.3	90.0	95.2	94.6	93.2
Maintenance Expenses as % of Total Plant	1.3	1.1	1.1	1.4	1.8	1.9	1.9
Depreciation Expenses as % of Total Plant	2.8	2.8	2.9	3.6	3.6	3.7	3.7
Depreciation Expenses as % of Depreciable Plant	c	c	c	3.6	4.1	3.7	3.9
Total Taxes as % of Total Plant	5.1	4.6	4.1	5.6	7.2	7.6	6.8
Total Taxes as % of Net Plant	6.5	6.2	5.6	8.5	11.8	13.1	11.5
Total Taxes as % of Net Income plus Total Taxes	56.0	52.4	52.5	53.9[a]	53.6[a]	63.5[a]	64.4[a]
Current Federal Income Tax as % of Net Income plus current Federal Income Tax[d]	39.4	36.4	29.8	30.4[a]	27.4[a]	40.0[a]	45.0[a]
Plant							
Total Plant as % of Total Operating Revenue	239.6	244.7	235.3	161.6	78.1	83.3	111.1
Net Plant as % of Total Operating Revenue	187.0	182.2	170.0	106.7	47.6	48.3	65.7
Depreciation Reserve as % of Total Plant	21.9	25.5	27.8	34.0	39.0	42.0	40.9
Depreciation Reserve as % of Depreciable Plant	c	c	c	35.8	44.0	43.1	43.0
Total Plant per Employee ($000)	100.9	137.1	182.1	251.6	328.1	423.2	445.3
Capitalization							
Long-term Debt as % of Net Plant	56.1	54.8	56.3	59.4	53.9	52.4	50.4
% Total Capitalization Represented by:							
a. Long-term Debt	53.9	53.5	54.7	50.1	42.9	40.0	40.2
b. Preferred Stock	7.9	7.2	6.8	6.5	7.1	5.2	4.6
c. Common Equity	38.2	39.3	38.5	43.4	50.0	54.8	55.2
% Current Year Financing of Construction Expenditures Represented by:							
a. Internal Sources	c	c	c	53.8	55.3	71.8	63.5
b. Equity Issues	c	c	c	11.9	11.2	7.9	4.7
c. Debt Issues	c	c	c	34.3	33.5	20.3	31.8

a. Not comparable with 1970 and prior years due to a 1973 Federal Power Commission ruling requiring adoption of the equity method in reporting earnings of subsidiaries.
b. Reflects pre-federal income tax coverage.
c. Not available.
d. Includes "Investment Tax Credit Adjustment."

TABLE 14-2
SELECTED COMPOSITE ANALYTICAL RATIOS
INVESTOR-OWNED GAS UTILITY INDUSTRY
DISTRIBUTION COMPANIES, 1980-1986

	1980	1981	1982	1983	1984	1985	1986
Earnings							
Utility Operating Income as % of Total Plant	6.9	7.2	6.9	7.4	7.7	7.3	6.6
Utility Operating Income as % of Net Plant	9.7	10.4	10.0	10.9	11.5	10.7	9.8
Operating Revenue as % of Total Plant	127.5	138.5	150.2	151.6	145.0	123.7	100.9
Common Dividend Payout Ratio	78.0	72.6	73.2	67.1	67.1	81.3	100.4
Return on Common Equity	12.8	12.4	11.8	14.0	15.7	14.0	12.1
Return on Average Common Equity	13.1	12.9	12.3	15.1	16.3	a	a
Return on Net Plant	5.4	5.3	5.2	6.6	7.4	6.7	5.7
Pretax Interest Coverage of:							
Total Interest Expense[b]	3.1	2.6	2.6	3.3	3.8	3.6	3.1
Long-Term Debt Interest Expense[b]	4.0	3.8	3.3	3.9	4.5	4.3	3.8
Allowance for Funds Used During Construction as % of Net Income	1.8	4.7	4.3	2.3	1.8	1.1	1.2
Expenses							
Operating Expenses as % of Operating Revenue	94.6	94.9	95.5	95.2	94.8	94.2	93.5
Maintenance Expenses as % of Total Plant	2.3	2.2	2.2	2.5	2.5	2.4	2.4
Depreciation Expenses as % of Total Plant	3.1	3.2	3.2	3.4	3.3	3.3	3.4
Depreciation Expenses as % of Depreciable Plant	3.2	3.2	3.3	3.4	3.4	3.4	3.9
Total Taxes as % of Total Plant	10.3	9.3	9.7	11.2	11.7	10.8	9.5
Total Taxes as % of Net Plant	14.5	13.4	14.1	16.5	17.5	16.0	14.0
Total Taxes as % of Net Income plus Total Taxes	71.5	70.4	71.7	70.3	69.1	69.4	70.1
Current Federal Income Tax as % of Net Income plus current Federal Income Tax[c]	35.2	28.9	29.9	28.8	40.6	33.4	43.0
Plant							
Total Plant as % of Total Operating Revenue	78.4	72.2	66.6	66.0	69.0	80.8	99.1
Net Plant as % of Total Operating Revenue	55.8	50.2	45.6	44.7	46.1	54.6	67.1
Depreciation Reserve as % of Total Plant	28.9	30.5	31.4	32.2	33.1	32.4	32.2
Depreciation Reserve as % of Depreciable Plant	30.3	31.1	32.0	32.8	33.9	33.2	36.1
Total Plant per Employee ($000)	210.5	219.5	234.1	241.4	259.2	281.3	299.5
Capitalization							
Long-term Debt as % of Net Plant	40.4	40.3	41.4	40.5	39.1	38.0	40.5
% Total Capitalization Represented by:							
a. Long-term Debt	45.9	46.2	46.0	44.1	43.1	42.4	44.8
b. Preferred Stock	6.0	4.6	4.5	4.9	4.6	4.2	3.4
c. Common Equity	48.1	49.2	49.5	51.0	52.3	53.4	51.8
% Current Year Financing of Construction Expenditures Represented by:							
a. Internal Sources	44.9	49.2	55.0	65.2	78.0	73.1	52.9
b. Equity Issues	0.5	12.8	22.6	14.8	7.3	4.9	7.9
c. Debt Issues	54.6	38.0	22.4	20.0	14.7	22.0	39.2

a. Not available.
b. Reflects pre-federal income tax coverage.
c. Includes "Investment Tax Credit Adjustment."

ANALYTICAL RATIOS

TABLE 14-3
SELECTED COMPOSITE ANALYTICAL RATIOS
INVESTOR-OWNED GAS UTILITY INDUSTRY
TRANSMISSION COMPANIES, 1960-1986

	1960	1965	1970	1975	1980	1985	1986
Earnings							
Utility Operating Income as % of Total Plant	5.6	4.9	5.3	6.8	6.7	5.9	6.0
Utility Operating Income as % of Net Plant	7.3	7.0	7.8	11.7	12.7	12.9	12.6
Operating Revenue as % of Total Plant	35.6	35.5	36.2	58.5	137.2	117.0	79.4
Common Dividend Payout Ratio	64.8	75.9	72.5	50.9[a]	56.3[a]	124.5[a]	167.4[a]
Return on Common Equity	12.1	12.1	11.7	14.9[a]	15.6[a]	8.5[a]	5.4[a]
Return on Average Common Equity	12.7	12.3	12.1	15.8	16.4	8.5	c
Return on Net Plant	4.1	4.2	4.4	10.1	13.8	8.9	5.6
Pretax Coverage of:							
Total Interest Expense[b]	3.5	3.3	2.5	3.6	3.9	2.9	2.3
Long-Term Debt Interest Expense[b]	3.9	3.6	3.0	4.3	5.2	3.7	3.2
Allowance for Funds Used During Construction of % of Net Income	3.5	4.8	4.3	3.0	5.4	2.5	2.7
Expenses							
Operating Expenses as % of Operating Revenue	84.6	86.5	85.8	88.8	95.4	95.3	93.2
Maintenance Expenses as % of Total Plant	0.7	0.7	0.7	0.9	1.3	1.3	1.4
Depreciation Expenses as % of Total Plant	3.2	3.1	3.1	4.4	4.1	3.8	3.9
Depreciation Expenses as % of Depreciable Plant	c	c	c	4.4	4.5	3.8	4.1
Total Taxes as % of Total Plant	3.6	3.1	2.3	5.0	6.6	5.1	4.5
Total Taxes as % of Net Plant	4.6	4.4	3.4	8.6	12.5	11.0	9.5
Total Taxes as % of Net Income plus Total Taxes	50.2	48.4	40.0	44.6[a]	46.1[a]	53.0[a]	59.3[a]
Current Federal Income Tax as % of Net Income plus current Federal Income Tax[d]	34.0	35.9	26.2	35.6[a]	28.4[a]	39.6[a]	49.4[a]
Plant							
Total Plant as % of Total Operating Revenue	280.9	281.4	276.0	171.0	72.9	85.4	125.9
Net Plant as % of Total Operating Revenue	216.9	198.9	186.4	98.5	38.4	39.2	60.1
Depreciation Reserve as % of Total Plant	22.8	29.3	32.5	42.4	47.3	54.1	52.2
Depreciation Reserve as % of Depreciable Plant	c	c	c	43.8	52.1	55.5	54.3
Total Plant per Employee ($000)	285.4	388.7	505.0	547.1	673.1	844.0	909.0
Capitalization							
Long-term Debt as % of Net Plant	63.4	61.8	62.1	71.8	64.1	64.3	58.8
% Total Capitalization Represented by:							
a. Long-term Debt	59.6	58.8	57.1	48.6	39.4	36.4	34.9
b. Preferred Stock	8.7	8.4	8.5	5.8	6.7	4.3	3.4
c. Common Equity	31.8	32.9	34.4	45.5	53.9	59.3	61.7
% Current Year Financing of Construction Expenditures Represented by:							
a. Internal Sources	c	c	c	55.4	65.1	75.9	69.0
b. Equity Issues	c	c	c	3.7	6.0	0.0	3.8
c. Debt Issues	c	c	c	40.9	28.9	24.1	27.2

a. Not comparable with 1970 and prior years due to a 1973 Federal Power Commission ruling requiring adoption of the equity method in reporting earnings of subsidiaries.
b. Reflects pre-federal income tax coverage.
c. Not available.
d. Includes "Investment Tax Credit Adjustment."

TABLE 14-4
SELECTED COMPOSITE ANALYTICAL RATIOS
INVESTOR-OWNED GAS UTILITY INDUSTRY
INTEGRATED COMPANIES, 1980-1986

	1980	1981	1982	1983	1984	1985	1986
Earnings							
Utility Operating Income as % of Total Plant	5.8	6.3	7.1	7.5	8.3	7.5	7.6
Utility Operating Income as % of Net Plant	9.1	9.6	10.9	11.7	12.9	12.6	11.8
Operating Revenue as % of Total Plant	125.8	132.8	143.2	140.7	134.5	122.5	103.6
Common Dividend Payout Ratio	52.5	56.6	66.2	74.1	78.7	154.6	83.3
Return on Common Equity	15.4	16.0	14.2	12.8	13.1	5.6	11.8
Return on Average Common Equity	15.6	17.0	14.9	13.2	13.0	a	a
Return on Net Plant	9.1	9.4	8.6	8.4	8.8	4.4	6.8
Pretax Coverage of:							
Total Interest Expense[b]	3.2	3.2	3.0	3.4	3.7	2.3	2.9
Long-Term Debt Interest Expense[b]	4.6	4.8	4.2	4.1	4.4	3.5	4.3
Allowance for Funds Used During Construction as % of Net Income	2.0	1.6	1.8	0.9	0.7	1.5	1.1
Expenses							
Operating Expenses as % of Operating Revenue	95.6	95.4	95.2	94.8	93.9	94.0	92.8
Maintenance Expenses as % of Total Plant	2.1	2.3	2.4	2.2	2.3	2.2	2.2
Depreciation Expenses as % of Total Plant	3.6	3.5	3.5	3.7	3.6	4.0	3.1
Depreciation Expenses as % of Depreciable Plant	4.4	3.7	3.7	3.9	3.8	4.0	3.1
Total Taxes as % of Total Plant	6.4	8.0	8.5	9.2	9.9	8.4	8.6
Total Taxes as % of Net Plant	10.0	12.2	13.0	14.3	15.6	14.1	13.4
Total Taxes as % of Net Income plus Total Taxes	51.3	55.4	59.0	61.3	61.2	71.7	64.5
Current Federal Income Tax as % of Net Income plus current Federal Income Tax[c]	26.8	20.7	20.1	34.4	39.7	51.4	43.6
Plant							
Total Plant as % of Total Operating Revenue	79.5	75.3	69.8	71.1	74.4	81.6	96.5
Net Plant as % of Total Operating Revenue	51.1	49.4	45.7	45.7	47.5	48.6	61.8
Depreciation Reserve as % of Total Plant	35.7	34.3	34.6	35.8	36.1	40.4	35.9
Depreciation Reserve as % of Depreciable Plant	43.8	36.8	36.8	38.0	38.4	40.6	35.9
Total Plant per Employee ($000)	249.8	255.5	259.0	275.1	289.7	328.0	291.5
Capitalization							
Long-term Debt as % of Net Plant	54.6	50.3	52.5	52.7	52.6	37.1	53.4
% Total Capitalization Represented by:							
a. Long-term Debt	45.9	44.1	44.2	42.4	41.2	40.6	45.6
b. Preferred Stock	4.0	4.6	4.8	4.5	5.0	3.7	4.6
c. Common Equity	50.1	51.3	51.0	53.2	53.8	55.7	49.8
% Current Year Financing of Construction Expenditures Represented by:							
a. Internal Sources	62.0	64.7	48.5	69.3	78.5	89.7	66.3
b. Equity Issues	2.6	7.8	3.8	9.7	5.3	3.0	0.4
c. Debt Issues	35.4	27.5	47.7	21.0	16.2	7.3	33.3

a. Not available.
b. Reflects pre-federal income tax coverage.
c. Includes "Investment Tax Credit Adjustment."

ANALYTICAL RATIOS

TABLE 14-5
SELECTED COMPOSITE ANALYTICAL RATIOS
INVESTOR-OWNED GAS UTILITY INDUSTRY
COMBINATION COMPANIES, 1980-1986

	1980	1981	1982	1983	1984	1985	1986
Gas Operations							
Earnings							
Utility Operating Income as % of Total Plant	7.4	7.4	8.2	8.4	9.3	8.7	7.4
Utility Operating Income as % of Net Plant	10.7	10.8	12.2	12.7	14.3	11.5	9.9
Operating Revenue as % of Total Plant	108.4	117.3	128.6	129.7	129.5	121.5	95.3
Common Dividend Payout Ratio	59.0	64.1	57.9	62.0	52.7	71.6	70.9
Return on Common Equity	15.5	14.8	17.2	17.0	19.2	12.0	11.9
Return on Average Common Equity	15.9	15.3	17.9	17.4	19.8	13.2	c
Return on Net Plant	5.8	5.6	6.8	6.8	8.1	5.0	5.1
Pretax Coverage of:							
Total Interest Expense[a]	3.0	2.8	3.2	3.3	3.6	3.4	3.1
Long-Term Debt Interest Expense[a]	3.6	3.4	3.8	3.7	4.0	3.7	3.4
Allowance for Funds Used During Construction as % of Net Income	29.4	32.6	31.0	34.5	26.8	28.3	20.0
Expenses							
Operating Expenses as % of Operating Revenue	94.5	95.0	94.9	94.9	94.1	93.9	93.1
Maintenance Expenses as % of Total Plant	2.3	2.5	2.5	2.4	2.4	2.4	2.3
Depreciation Expenses as % of Total Plant	3.1	3.1	3.2	3.3	3.5	3.6	3.7
Depreciation Expenses as % of Depreciable Plant	3.6	3.2	3.3	3.6	3.7	3.7	3.8
Total Taxes as % of Total Plant	6.9	7.4	8.9	9.1	10.1	9.7	8.3
Total Taxes as % of Net Plant	10.1	10.8	13.2	13.8	15.5	12.8	11.2
Total Taxes as % of Net Income plus Total Taxes	59.3	61.6	62.5	63.2	62.2	67.9	65.3
Current Federal Income Tax as % of Net Income plus current Federal Income Tax[b]	15.5	21.6	22.8	20.1	40.1	38.5	38.5
Plant							
Total Plant as % of Total Operating Revenue	92.2	85.3	77.8	77.1	77.2	82.3	104.9
Net Plant as % of Total Operating Revenue	63.7	58.5	52.6	51.1	50.3	62.2	78.2
Depreciation Reserve as % of Total Plant	31.0	31.4	32.4	33.7	34.9	24.4	25.5
Depreciation Reserve as % of Depreciable Plant	36.3	32.6	33.7	36.3	36.5	25.4	26.5
Total Plant per Employee ($000)	230.3	253.3	267.4	280.2	298.3	299.2	321.2
All Operations							
Earnings							
Utility Operating Income as % of Total Plant	6.5	7.1	7.6	7.9	8.0	7.6	7.3
Utility Operating Income as % of Net Plant	8.4	9.2	9.8	10.2	10.5	10.0	9.8
Operating Revenue as % of Total Plant	39.8	42.5	42.6	40.8	42.1	52.3	36.9
Common Dividend Payout Ratio	76.0	73.3	69.4	68.6	63.7	74.1	69.6
Return on Common Equity	10.8	11.7	12.9	13.5	13.8	11.8	12.6
Return on Average Common Equity	11.4	12.3	13.8	14.4	13.9	12.3	c
Return on Net Plant	4.0	4.4	5.0	5.3	5.7	4.9	5.3
Pretax Coverage of:							
Total Interest Expense[a]	2.6	2.6	2.9	3.1	3.2	3.0	3.2
Long-Term Debt Interest Expense[a]	3.0	3.1	3.4	3.4	3.5	3.3	3.5
Allowance for Funds Used During Construction as % of Net Income	37.4	37.2	37.0	41.5	34.8	37.2	26.6
Expenses							
Operating Expenses as % of Operating Revenue	87.2	86.9	86.2	85.6	85.2	84.9	83.5
Maintenance Expenses as % of Total Plant	2.1	2.1	2.2	2.1	2.2	2.2	2.2
Depreciation Expenses as % of Total Plant	2.4	2.4	2.5	2.4	2.6	2.6	2.7
Depreciation Expenses as % of Depreciable Plant	3.2	3.1	3.3	3.4	3.5	3.5	3.4
Total Taxes as % of Total Plant	4.3	4.7	5.4	5.6	6.2	5.9	6.1
Total Taxes as % of Net Plant	5.6	6.1	7.0	7.3	8.1	7.8	8.1
Total Taxes as % of Net Income plus Total Taxes	53.2	53.5	54.3	54.0	55.2	57.7	56.1
Current Federal Income Tax as % of Net Income plus current Federal Income Tax[b]	16.8	20.7	28.7	23.2	27.4	28.5	38.5
Plant							
Total Plant as % of Total Operating Revenue	251.4	235.4	234.8	245.4	237.4	252.4	270.8
Net Plant as % of Total Operating Revenue	194.7	181.4	180.8	189.6	180.6	191.2	202.3
Depreciation Reserve as % of Total Plant	22.5	22.9	23.0	22.7	23.9	24.2	25.3
Depreciation Reserve as % of Depreciable Plant	30.1	29.7	30.4	32.1	32.3	32.0	32.0
Capitalization							
Long-term Debt as % of Net Plant	45.5	44.6	44.7	44.3	45.8	44.8	44.6
% Total Capitalization Represented by:							
a. Long-term Debt	48.0	47.5	47.1	46.7	46.8	46.7	46.7
b. Preferred Stock	13.2	12.9	12.3	12.1	11.2	10.2	9.1
c. Common Equity	38.8	39.6	40.6	41.3	42.0	43.1	44.2
% Current Year Financing of Construction Expenditures Represented by:							
a. Internal Sources	32.5	41.3	49.8	54.7	45.4	52.3	60.7
b. Equity Issues	35.9	23.7	30.3	18.6	20.2	28.6	6.5
c. Debt Issues	31.6	35.0	19.9	26.7	34.4	19.1	32.8

a. Reflects pre-federal income tax coverage.
b. Includes "Investment Tax Credit Adjustment."
c. Not available.

SECTION 15
SECURITY ISSUES

	1986	% Change 86/85
No. of Issues		
Total	415	0.0
Common Stock	186	−16.2
Preferred Stock	15	+25.0
Debt Issues	214	+18.2
Amount		
(Thousands)		
Total	$17,218,513	+23.9
Common Stock	1,906,278	−21.5
Preferred Stock	596,318	+83.1
Debt Issues	14,715,917	+32.1

TABLE 14-6
SELECTED ANALYTICAL RATIOS RELATING TO INVESTOR-OWNED GAS UTILITY INDUSTRY OPERATING AND MAINTENANCE EXPENSES, 1970-1986[a]

Type of Activity	Total Operating and Maintenance Expense per Therm of Sales (cents)					Total Operating Revenue per Therm of Sales (cents)				
	1970	1975	1980	1985	1986	1970	1975	1980	1985	1986
Natural Gas Distribution[b]	5.85	11.53	29.37	46.65	43.06	8.46	15.12	34.82	56.68	53.66
Natural Gas Transmission	2.44	6.07	22.12	35.62	31.87	3.45	8.35	25.23	40.57	38.60

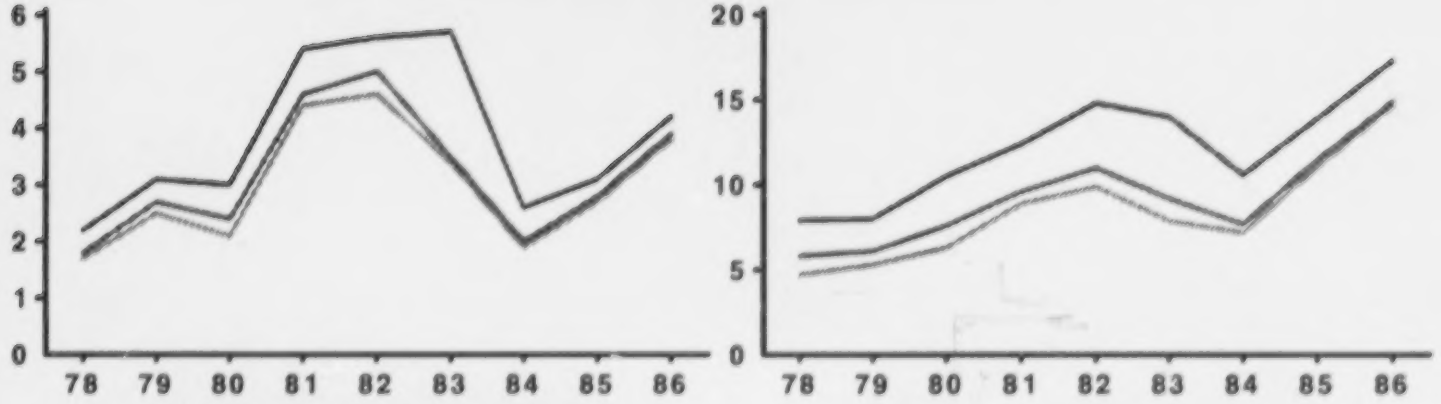
Type of Activity	Transmission and Distribution Expense per Mile of Pipe (dollars)					Total Cost of Purchases as Percent of Total Operating and Maintenance Expense (%)				
	1970	1975	1980	1985	1986	1970	1975	1980	1985	1986
Natural Gas Distribution[b]	1,423.07	1,904.73	2,666.68	3,396.86	3,531.81	69.30	77.74	85.80	84.21	80.54
Natural Gas Transmission	2,398.21	3,836.43	11,510.06	13,899.46	12,101.60	89.00	86.09	90.66	87.12	81.38

Type of Activity	Customer Accounts Expense Per Customer (dollars)					Total Payroll as Percent of Total Operating and Maintenance Expense (%)				
	1970	1975	1980	1985	1986	1970	1975	1980	1985	1986
Natural Gas Distribution[b]	8.06	13.90	22.68	33.33	33.32	19.18	14.97	9.05	8.92	10.71
Natural Gas Transmission						7.41	5.99	2.97	4.10	5.70

Type of Activity	Gross Sales Expense per Customer (dollars)				
	1970	1975	1980	1985	1986
Straight Natural Gas Distribution	6.56	2.90	2.94	4.95	5.27
Combination Natural Gas Distribution	4.01	1.16	0.60	1.07	1.35

a. Integrated companies excluded.
b. Includes both straight gas and combination companies.

GAS UTILITY NEW SECURITY ISSUES
(BILLIONS OF DOLLARS)



Distribution, Transmission and Integrated Companies

All Gas Utility Companies

■ **Debt Issues** ■ **Preferred Stock** ■ **Common Stock**

REFERENCE: TABLES 15-1, 15-4, 15-6, 15-8, 15-10, 15-12

TABLE 15-1
GAS UTILITY INDUSTRY SECURITY ISSUES
OF DISTRIBUTION, INTEGRATED, TRANSMISSION, HOLDING,[a] AND COMBINATION GAS AND ELECTRIC COMPANIES
1960-1986[b]

	Total		Common Stock		Preferred Stock		Debt Issues							
							Total		Bonds		Debentures		Notes	
Year	No. of Issues	Amount (000)	No. of Issues	Amount (000)	No. of Issues	Amount (000)	No. of Issues	Amount (000)	No. of Issues	Amount (000)	No. of Issues	Amount (000)	No. of Issues	Amount (000)
1960	193	$ 1,859,043	67	$ 240,509	19	$ 202,267	107	$1,416,267	79	$1,098,250	20	$ 276,323	8	$ 41,694
1965	176	1,728,807	60	99,444	28	324,790	88	1,304,573	61	854,010	18	410,900	9	39,663
1970	280	6,030,084	68	745,638	33	620,674	179	4,663,772	125	3,502,000	27	897,500	27	264,272
1971	330	7,012,900	96	1,283,271	47	965,439	187	4,764,190	103	3,193,366	26	927,500	58	643,324
1972	280	6,832,495	83	1,306,307	39	1,185,808	158	4,340,380	87	3,032,306	13	554,500	58	753,574
1973	286	6,302,378	96	1,408,410	39	1,073,959	151	3,820,009	82	2,466,690	6	260,000	63	1,093,319
1974	286	7,889,359	102	1,144,544	39	1,128,175	145	5,616,640	78	3,950,281	17	739,519	50	926,840
1975	353	8,312,575	141	1,973,385	42	1,059,396	170	5,279,794	101	3,661,125	19	911,571	50	707,098
1976	336	9,104,026	152	2,472,747	41	1,108,268	143	5,523,011	75	2,899,279	16	860,500	52	1,763,232
1977	336	8,244,438	167	1,864,904	40	1,106,130	129	5,273,404	70	2,956,200	10	461,500	49	1,855,704
1978	351	7,933,090	163	2,167,077	48	1,055,458	140	4,710,555	73	3,189,650	12	306,516	55	1,214,389
1979	322	7,959,649	162	1,860,954	30	773,692	130	5,325,003	69	2,908,350	11	895,000	50	1,521,653
1980	275	10,508,334	101	2,879,775	31	1,288,237	143	6,340,322	73	3,571,945	18	1,510,000	52	1,258,377
1981	472	12,384,931	246	2,816,829	27	654,940	199	8,913,162	110	5,051,554	16	1,207,500	73	2,654,108
1982	523	14,794,327	287	3,832,926	32	1,073,300	204	9,888,101	107	4,538,410	20	1,356,000	77	3,993,691
1983	499	14,014,964	275	4,855,205	29	1,301,151	145	7,858,608	86	4,651,154	12	1,024,703	47	2,182,751
1984	386	10,596,488	229	2,852,559	13	538,000	144	7,205,929	90	4,452,571	12	838,250	42	1,915,108
1985	415	13,893,132	222	2,428,977	12	325,701	181	11,138,454	85	6,131,774	9	770,015	87	4,236,665
1986	415	17,218,513	186	1,906,278	15	596,318	214	14,715,917	126	9,628,924	28	2,586,000	60	2,500,993

a. Holding companies used in this section are as follows: Columbia Gas Systems, Inc., Northeast Utilities, Northern States Power Company, Public Service Company of Colorado, Tenneco, Inc., Texas Eastern Corp., Union Electric Company, Utilicorp United, Inc., and Wisconsin Electric Power Company.

b. All new and refunding security issues, except sales by subsidiaries to parent companies and direct exchanges for which data were obtainable have been included. Short term notes for less than one year are omitted. Bonds, debentures, and notes are included in principal amounts; preferred stocks at stated or liquidating values; and common stocks at offerings prices.

TABLE 15-3
GAS UTILITY INDUSTRY LONG TERM DEBT ISSUES, BY MOODY'S BOND RATING CATEGORY, 1986

	Issues		Cost %		Yield %	
Rating	Number	Sample Amount (000)	Average	Weighted Average	Average	Weighted Average
Aaa	4	$ 166,000	9.07	9.02	8.93	8.87
Aa	14	$1,196,000	9.03	8.80	8.92	8.71
A	19	$2,203,000	9.40	9.47	9.29	9.37
Baa	14	$1,565,000	9.85	9.86	9.50	9.50
Ba	1	$ 178,000	10.46	10.46	10.30	10.30
B	2	$ 525,000	11.80	11.81	11.50	11.51

TABLE 15–4
GAS UTILITY INDUSTRY COMMON STOCK ISSUES, BY TYPE OF COMPANY
1980–1986[a]

Type of Company	1980	1981	1982	1983	1984	1985	1986
Total							
Amount (000)	$2,879,775	$2,816,829	$3,832,926	$4,855,205	$2,852,559	$2,428,977	$1,906,278
No. of Issues	101	246	287	275	229	222	186
Distribution							
Amount (000)	$277	$178,822	$69,503	$272,950	$224,065	$304,841	$300,911
No. of Issues	4	33	30	43	34	62	65
Transmission							
Amount (000)	$453,019	$565,822	$375,298	$159,889	$35,625	$300	$1,000
No. of Issues	7	11	10	7	1	1	1
Integrated							
Amount (000)	$156,900	$84,240	$121,926	$1,835,208	$334,095	$35,023	$26,593
No. of Issues	5	20	44	34	39	16	10
Combination Utilities							
Amount (000)	$2,053,120	$1,839,529	$2,984,412	$2,394,543	$1,742,913	$1,767,779	$1,469,309
No. of Issues	80	169	194	183	136	121	99
Holding[b]							
Amount (000)	$216,459	$148,416	$281,787	$192,615	$515,861	$321,034	$108,465
No. of Issues	5	13	9	8	19	22	11

a. See Footnote "b", Table 15–1 for description of securities included and the derivation of stated amounts.
b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15–1.

TABLE 15-5
GAS UTILITY INDUSTRY INDEXES OF COMMON STOCK PRICES, DIVIDENDS, YIELDS, AND EARNINGS BY TYPE OF COMPANY, 1981–1986

Type of Company	Year	1981		1982		1983		1984		1985		1986	
	Week	Jun 26	Dec 31	Jun 25	Dec 31	Jul 1	Dec 30	Jun 29	Dec 30	Jun 28	Dec 31	Jul 1	Dec 30
Natural Gas Industry													
a) Market Price ($ Per Share)		108.36	106.96	84.47	92.94	113.52	113.40	109.88	116.05	135.91	138.65	130.83	122.52
b) Dividend ($ Per Share)		6.70	6.91	6.89	7.14	7.05	7.29	7.44	7.71	7.89	8.12	8.02	7.69
c) Yield (Percent)		6.18	6.46	8.16	7.68	6.21	6.43	6.77	6.64	5.81	5.86	6.13	6.27
d) Earnings ($ Per Share)*		14.55	16.97	16.34	14.98	13.11	12.92	14.88	12.46	9.48	8.48	9.48	8.47
Distribution Companies													
a) Market Price ($ Per Share)		54.79	53.50	48.27	50.62	55.49	55.79	56.87	69.70	81.61	76.58	95.58	88.66
b) Dividend ($ Per Share)		4.96	5.12	5.29	5.39	5.42	5.55	5.67	5.88	6.03	6.22	5.51	5.71
c) Yield (Percent)		9.05	9.57	10.96	10.65	9.77	9.95	9.97	8.44	7.39	8.12	5.76	6.44
d) Earnings ($ Per Share)*		8.81	8.77	8.22	7.46	6.34	6.66	9.99	2.58	2.43	2.42	2.43	7.42
Transmission Companies													
a) Market Price ($ Per Share)		137.87	135.42	99.17	114.32	141.88	142.96	137.19	145.38	167.48	175.87	176.25	154.25
b) Dividend ($ Per Share)		7.85	8.29	8.56	8.90	8.59	8.89	9.04	9.39	9.66	9.91	9.93	9.22
c) Yield (Percent)		5.69	6.12	8.63	7.79	6.05	6.22	6.59	6.46	5.77	5.63	5.63	5.97
d) Earnings ($ Per Share)*		17.45	23.17	21.57	19.64	16.99	15.81	18.16	17.01	13.70	9.97	13.70	9.97

* Earnings are for twelve month periods.
Source: Moody's Investor Service, *Moody's Public Utility News Reports.*

TABLE 15–6
GAS UTILITY INDUSTRY PREFERRED STOCK ISSUES, BY TYPE OF COMPANY
1980–1986[a]

Type of Company	1980	1981	1982	1983	1984	1985	1986
Total							
Amount (000)	$1,288,237	$654,940	$1,073,300	$1,301,151	$538,000	$325,701	$596,318
No. of Issues	31	27	32	29	13	12	15
Distribution							
Amount (000)	$34,000	$21,000	$8,000	$30,000	$10,000	$361	$22,118
No. of Issues	3	2	1	1	1	3	3
Transmission							
Amount (000)	$259,737	$125,206	$285,000	$0	$0	$20,000	$90,000
No. of Issues	1	4	6	0	0	1	1
Integrated							
Amount (000)	$3,500	$27,000	$102,000	$89,494	$100,000	$0	$0
No. of Issues	1	1	4	5	1	0	0
Combination Utilities							
Amount (000)	$991,000	$481,734	$675,300	$998,922	$428,000	$177,200	$454,200
No. of Issues	26	20	20	19	11	6	10
Holding[b]							
Amount (000)	$0	$0	$3,000	$182,735	$0	$128,140	$30,000
No. of Issues	0	0	1	4	0	2	1

a. See Footnote "b", Table 15–1 for description of securities included and the derivation of stated amounts.
b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15–1.

TABLE 15-8
GAS UTILITY INDUSTRY BOND ISSUES, BY TYPE OF COMPANY
1980-1986[a]

Type of Company	1980	1981	1982	1983	1984	1985	1986
Total							
Amount (000)	$3,571,945	$5,051,554	$4,538,410	$4,651,154	$4,452,571	$6,131,774	$9,628,924
No. of Issues	73	110	107	86	90	85	126
Distribution							
Amount (000)	$25,545	$560,500	$135,000	$493,321	$117,355	$676,729	$798,539
No. of Issues	3	20	12	13	7	20	33
Transmission							
Amount (000)	$53,000	$875,000	$425,000	$225,000	$0	$0	$0
No. of Issues	1	5	4	2	0	0	0
Integrated							
Amount (000)	$122,500	$221,400	$150,647	$449,103	$227,150	$18,000	$313,000
No. of Issues	7	6	8	12	6	1	4
Combination Utilities							
Amount (000)	$3,160,900	$3,297,909	$3,701,163	$3,147,730	$3,922,866	$4,682,495	$6,813,105
No. of Issues	59	74	81	52	73	54	72
Holding[b]							
Amount (000)	$210,000	$96,745	$126,600	$336,000	$185,200	$754,550	$1,704,280
No. of Issues	3	5	2	7	4	10	17

a. See Footnote "b", Table 15-1 for description of securities included and the derivation of stated amounts.
b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15-1.

TABLE 15-2
GAS UTILITY INDUSTRY AVERAGE PERCENT COST AND YIELD OF SECURITY ISSUES OF DISTRIBUTION, INTEGRATED, TRANSMISSION, HOLDING,[a] AND COMBINATION GAS AND ELECTRIC COMPANIES 1960-1986[b]

	Preferred Stock				Bonds				Debentures				Sample Amount (000)		
	Cost %		Yield %		Cost %		Yield %		Cost %		Yield %				
Year	Average	Weighted Average	Average	Weighted Average	Average	Weighted Average	Average	Weighted Average	Average	Weighted Average	Average	Weighted Average	Preferred Stock	Bonds	Debentures
1960	5.61	5.51	5.50	5.45	5.22	5.03	5.17	4.98	5.22	5.09	5.14	5.03	$ 192,767	$1,017,700	$ 266,602
1965	4.71	4.78	4.69	4.76	4.77	4.74	4.75	4.71	4.84	4.87	4.81	4.82	268,200	806,460	403,700
1970	9.25	9.27	9.16	9.18	9.04	9.08	9.06	9.26	9.16	9.36	9.06	9.26	570,674	3,492,500	897,000
1971	8.16	7.98	8.05	7.87	8.06	7.90	7.97	7.81	8.16	8.14	8.07	8.05	922,312	3,098,589	912,500
1972	7.70	7.65	7.62	7.56	7.60	7.56	7.53	7.50	7.53	7.44	7.46	7.38	1,074,539	2,631,306	455,500
1973	7.72	7.61	7.66	7.54	7.98	7.93	7.91	7.87	7.80	7.77	7.73	7.71	1,051,459	2,137,890	200,000
1974	9.96	9.83	9.82	9.68	9.76	9.84	9.67	9.75	9.48	9.34	9.40	9.25	996,175	3,222,000	535,000
1975	10.87	10.89	10.55	10.53	10.10	10.06	10.00	9.97	10.28	10.31	10.17	10.20	1,028,515	3,346,050	801,000
1976	10.15	9.49	9.16	9.24	8.96	9.01	8.87	8.93	8.88	8.87	8.81	8.80	1,050,268	2,826,590	735,000
1977	8.50	8.45	8.34	8.31	8.51	8.50	8.45	8.44	8.74	8.36	8.63	8.29	973,512	2,682,500	265,000
1978	8.84	8.90	8.75	8.68	8.40	8.18	8.38	8.01	9.26	9.02	9.12	8.89	806,206	2,669,900	150,000
1979	9.05	9.32	9.03	9.23	11.14	10.55	11.12	10.48	10.81	11.12	10.65	11.04	705,500	2,348,300	645,000
1980	11.91	12.40	11.67	12.20	11.99	12.92	11.90	12.82	13.07	12.67	12.97	12.57	935,500	3,038,400	925,000
1981	13.75	14.06	13.57	13.80	15.06	16.55	14.77	16.29	16.24	16.11	15.80	15.76	630,500	3,956,154	1,207,500
1982	14.39	14.61	14.20	14.32	14.39	14.94	14.27	14.82	15.46	15.19	15.17	14.95	858,800	3,914,100	1,356,000
1983	11.69	12.18	11.42	11.85	11.82	12.10	11.63	11.96	12.40	13.54	12.23	13.39	1,209,175	3,958,380	780,000
1984	13.34	13.22	13.11	12.97	12.61	12.99	12.43	12.84	11.82	11.83	11.72	11.72	538,000	3,662,570	786,250
1985	11.68	11.67	11.65	11.67	10.80	11.13	10.47	10.93	11.24	11.58	11.11	11.46	101,000	4,477,947	722,189
1986	9.06	9.50	8.98	9.43	9.30	9.53	9.13	9.43	9.65	10.20	9.47	10.00	523,000	7,679,027	2,566,000

a. Refer to Table 15-1 for name of holding companies.

b. Includes only those preferred stocks, bonds, and debentures shown in Table 15-1 for which necessary cost and yield data were available.

Definitions: "Cost" refers to the expenses incurred by a company relative to new security issues over the life of debt issues and fixed dividends (if applicable) on preferred stocks. It includes underwriter fees, plus discount expenses less premiums.

"Yield" is the rate of return on investment by a buyer of these debt issues and fixed dividends (if applicable) expected on preferred stock. It includes underwriter fees, plus premium expenses less discounts.

TABLE 15-7
GAS UTILITY INDUSTRY AVERAGE PERCENT COST AND YIELD OF PREFERRED STOCK ISSUES
1980-1986[a]

	1980		1981		1982		1983		1984		1985		1986	
	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %
Total														
Average	11.91	11.67	13.75	13.57	14.39	14.20	11.69	11.42	13.34	13.11	11.68	11.65	9.06	8.98
Weighted Average	12.40	12.20	14.06	13.80	14.61	14.32	12.18	11.85	13.22	12.97	11.67	11.67	9.50	9.43
Sample Amount (000)		$935,500		$630,500		$858,800		$1,209,175		$538,000		$101,000		$523,000
Distribution														
Average	9.26	9.08	15.98	15.65	13.00	13.00	11.76	11.50	12.88	12.88	c	c	c	c
Weighted Average	9.34	9.13	16.41	15.79	13.00	13.00	11.76	11.50	12.88	12.88	c	c	c	c
Sample Amount (000)		$34,000		$21,000		$8,000		$30,000		$10,000		$0		$0
Transmission														
Average	c	c	13.28	13.00	14.55	14.27	c	c	c	c	8.80	8.80	8.75	8.75
Weighted Average	c	c	13.92	13.60	14.63	14.28	c	c	c	c	8.80	8.80	8.75	8.75
Sample Amount (000)		$0		$125,000		$175,000		$0		$0		$20,000		$90,000
Integrated														
Average	9.50	9.50	12.25	12.25	14.00	14.00	11.16	10.92	10.88	10.62	c	c	c	c
Weighted Average	9.50	9.50	12.25	12.25	14.00	14.00	11.04	10.81	10.88	10.62	c	c	c	c
Sample Amount (000)		$3,500		$27,000		$5,000		$85,000		$100,000		$0		$0
Combination Utilities														
Average	12.38	12.12	13.67	13.45	14.45	14.26	11.79	11.51	12.60	13.35	12.63	12.60	9.10	9.01
Weighted Average	12.52	12.32	14.10	13.86	14.63	14.35	12.36	12.01	13.78	13.52	12.38	12.37	9.66	9.57
Sample Amount (000)		$898,000		$457,500		$670,800		$995,425		$428,000		$81,000		$433,000
Holding[b]														
Average	c	c	c	c	c	c	11.48	11.27	c	c	c	c	c	c
Weighted Average	c	c	c	c	c	c	c	c	11.46	11.26	c	c	c	c
Sample Amount (000)		$0		$0		$0		$98,750		$0		$0		$0

a. Includes only those issues in Table 15-6 for which necessary cost and yield data were available.
b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15-1.
c. No issues used in this sample.
Definitions: "Cost" refers to the expenses incurred by a company. It includes dividends, underwriter fees, plus discount expenses less premiums.
"Yield" is the rate of return on investment by a buyer.

TABLE 15-8
GAS UTILITY INDUSTRY AVERAGE PERCENT COST AND YIELD OF BOND ISSUES
1980-1986[a]

	1980		1981		1982		1983		1984		1985		1986	
	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %
Total														
Average	11.99	11.90	15.06	14.77	14.39	14.27	11.82	11.63	12.61	12.43	10.80	10.47	9.30	9.13
Weighted Average	12.92	12.82	16.55	16.29	14.94	14.82	12.10	11.96	12.99	12.84	11.13	10.93	9.53	9.43
Sample Amount (000)		$3,038,400		$3,956,154		$3,914,100		$3,958,380		$3,662,570		$4,477,947		$7,679,027
Distribution														
Average	12.09	12.00	16.09	15.99	15.30	15.30	12.16	12.07	13.41	13.38	10.11	9.11	9.25	9.15
Weighted Average	12.09	12.00	16.68	16.58	15.81	15.81	12.67	12.56	12.81	12.72	9.11	8.80	9.18	9.09
Sample Amount (000)		$15,000		$497,500		$57,000		$350,450		$59,750		$400,200		$571,000
Transmission														
Average	c	c	16.65	16.45	13.79	13.58	13.04	12.91	c	c	c	c	c	c
Weighted Average	c	c	16.47	16.27	14.18	13.98	13.04	12.91	c	c	c	c	c	c
Sample Amount (000)		$0		$175,000		$225,000		$125,000		$0		$0		$0
Integrated														
Average	12.92	12.87	15.88	15.76	15.12	14.98	12.27	12.13	14.47	14.29	c	c	8.97	9.08
Weighted Average	12.30	12.23	16.05	15.91	15.39	15.23	12.08	11.97	14.34	14.22	c	c	8.97	9.08
Sample Amount (000)		$47,000		$218,000		$143,000		$394,000		$110,000		$0		$300,000
Combination Utilities														
Average	11.85	11.75	14.73	14.57	14.28	14.15	11.73	11.55	12.46	12.27	10.92	10.53	9.39	9.20
Weighted Average	12.93	12.83	16.55	16.37	14.95	14.83	12.09	11.96	12.92	12.78	11.30	11.10	9.66	9.55
Sample Amount (000)		$2,766,400		$2,968,909		$3,362,500		$2,777,930		$3,367,820		$3,802,747		$6,283,027
Holding[b]														
Average	13.23	13.14	13.40	13.18	14.66	14.38	10.93	10.50	13.88	13.82	11.82	11.75	8.74	8.57
Weighted Average	12.95	12.86	15.57	15.30	15.09	14.98	11.20	10.87	13.61	13.55	11.74	11.66	8.67	8.55
Sample Amount (000)		$210,000		$96,745		$126,600		$311,000		$125,000		$275,000		$525,000

a. Includes only those issues in Table 15-8 for which necessary cost and yield data were available.
b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15-1.
c. No issues used in this sample.

Definitions: "Cost" refers to the expenses incurred by a company. It includes dividends, underwriter fees, plus discount expenses less premiums.
"Yield" is the rate of return on investment by a buyer.

TABLE 15-10
GAS UTILITY INDUSTRY DEBENTURE ISSUES, BY TYPE OF COMPANY
1980-1986[a]

Type of Company	1980	1981	1982	1983	1984	1985	1986
Total							
Amount (000)	$1,510,000	$1,207,500	$1,356,000	$1,024,703	$838,250	$770,015	$2,586,000
No. of Issues	18	16	20	12	12	9	28
Distribution							
Amount (000)	$0	$88,500	$0	$165,000	$0	$0	$316,000
No. of Issues	0	4	0	3	0	0	10
Transmission							
Amount (000)	$663,500	$689,000	$703,000	$324,703	$437,000	$355,750	$650,000
No. of Issues	8	7	10	3	6	3	6
Integrated							
Amount (000)	$416,500	$340,000	$308,000	$460,000	$120,000	$224,039	$270,000
No. of Issues	5	3	4	5	3	2	3
Combination Utilities							
Amount (000)	$230,000	$90,000	$245,000	$75,000	$181,250	$190,226	$900,000
No. of Issues	3	2	5	1	2	4	5
Holding[b]							
Amount (000)	$200,000	$0	$100,000	$0	$100,000	$0	$450,000
No. of Issues	2	0	1	0	1	0	4

a. See Footnote "b", Table 15-1 for description of securities included and the derivation of stated amounts.
b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15-1.

TABLE 15-11
GAS UTILITY INDUSTRY AVERAGE PERCENT COST AND YIELD OF DEBENTURE ISSUES
1980-1986[a]

	1980		1981		1982		1983		1984		1985		1986	
	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %
Total														
Average	13.07	12.97	16.24	15.80	15.46	15.17	12.40	12.23	11.82	11.72	11.24	11.11	9.65	9.47
Weighted Average	12.67	12.57	16.11	15.76	15.19	14.95	13.54	13.39	11.83	11.72	11.58	11.46	10.20	10.00
Sample Amount (000)		$925,000		$1,207,500		$1,356,000		$880,000		$786,250		$722,189		$2,566,000
Distribution														
Average	c	c	16.22	15.81	c	c	12.68	12.37	c	c	c	c	9.07	8.85
Weighted Average	c	c	17.20	16.85	c	c	12.41	12.23	c	c	c	c	9.06	8.78
Sample Amount (000)		$0		$88,500		$0		$165,000		$0		$0		$316,000
Transmission														
Average	13.89	13.81	16.65	16.24	15.85	15.66	13.30	13.19	13.16	13.06	12.56	12.42	9.79	9.70
Weighted Average	14.10	14.02	16.49	16.09	15.46	15.26	13.30	13.19	12.84	12.72	12.49	12.35	9.81	9.72
Sample Amount (000)		$175,000		$689,000		$703,000		$200,000		$385,000		$355,750		$650,000
Integrated														
Average	11.65	11.56	14.80	14.43	13.96	13.64	11.79	11.69	11.80	11.72	11.66	11.64	9.46	9.39
Weighted Average	11.17	11.09	14.86	14.69	13.85	13.63	11.21	11.12	12.30	12.26	11.75	11.73	9.37	9.29
Sample Amount (000)		$400,000		$340,000		$308,000		$440,000		$120,000		$224,039		$250,000
Combination Utilities														
Average	14.54	14.39	17.02	16.33	15.85	15.37	12.26	12.00	9.97	9.75	8.84	8.63	11.23	10.92
Weighted Average	14.64	14.48	16.78	16.22	15.95	15.53	12.26	12.00	10.26	10.03	9.02	8.81	11.69	11.36
Sample Amount (000)		$150,000		$90,000		$245,000		$75,000		$181,250		$142,400		$900,000
Holding[b]														
Average	12.93	12.84	c	c	15.57	15.57	c	c	10.26	10.25	c	c	9.00	8.90
Weighted Average	12.93	12.84	c	c	15.46	15.46	c	c	10.26	10.25	c	c	9.03	8.93
Sample Amount (000)		$200,000		$0		$100,000		$0		$100,000		$0		$450,000

a. Includes only those issues in Table 15-10 for which necessary cost and yield data were available.
b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15-1.
c. No issues used in this sample.
Definitions: "Cost" refers to the expenses incurred by a company. It includes dividends, underwriter fees, plus discount expenses less premiums.
"Yield" is the rate of return on investment by a buyer.

TABLE 15–12
GAS UTILITY INDUSTRY NOTE ISSUES, BY TYPE OF COMPANY
1980–1986[a]

Type of Company	1980	1981	1982	1983	1984	1985	1986
Total							
Amount (000)	$1,258,377	$2,654,108	$3,993,691	$2,182,751	$1,915,108	$4,236,665	$2,500,993
No. of Issues	52	73	77	47	42	87	60
Distribution							
Amount (000)	$153,900	$123,135	$550,515	$438,635	$185,600	$46,860	$81,873
No. of Issues	4	11	9	7	4	6	6
Transmission							
Amount (000)	$455,764	$1,209,039	$1,671,000	$613,058	$296,500	$753,500	$930,195
No. of Issues	16	21	19	9	5	17	11
Integrated							
Amount (000)	$228,571	$281,479	$647,675	$185,356	$369,626	$710,950	$484,899
No. of Issues	9	7	15	7	7	9	8
Combination Utilities							
Amount (000)	$383,142	$978,455	$1,124,501	$762,967	$640,182	$1,807,740	$705,420
No. of Issues	22	33	34	20	20	39	15
Holding[b]							
Amount (000)	$37,000	$62,000	$0	$182,735	$423,200	$917,615	$298,606
No. of Issues	1	1	0	4	6	16	20

a. See Footnote "b", Table 15–1 for description of securities included and the derivation of stated amounts.
b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15–1.

SECTION 16
CONSTRUCTION EXPENDITURES

	1986	% Change 86/85
Construction Expenditures (Millions)		
Total	$5,342	− 5.8
Production & Storage	258	−67.3
Transmission	1,448	− 7.3
Underground Storage	125	−28.6
Distribution	2,920	+13.3
General	591	+ 4.2

CONSTRUCTION EXPENDITURES

TABLE 16-1
GAS UTILITY INDUSTRY CONSTRUCTION EXPENDITURES, BY TYPE OF FACILITY, 1960–1990[a]

(Millions)

Year	Total	Production and Storage	Transmission	Underground Storage	Distribution	General
1960	$1,845	$157	$848	$39	$696	$85
1961	1,662	172	654	55	687	94
1962	1,673	177	613	53	708	122
1963	1,558	138	461	106	752	101
1964	1,701	120	616	84	784	97
1965	1,935	156	770	69	824	116
1966	2,374	182	1,038	151	869	134
1967	2,252	186	1,006	91	848	121
1968	2,972	259	1,577	88	913	135
1969	2,686	83	1,511	128	863	101
1970	2,507	203	1,019	167	913	205
1971	2,419	340	842	171	888	178
1972	2,822	717	678	177	1,081	169
1973	2,966	771	746	201	1,094	155
1974	2,965	830	632	230	1,097	176
1975	2,466	555	590	276	910	136
1976	2,425	466	531	362	926	140
1977	2,833	620	670	323	1,048	172
1978	3,581	881	935	321	1,228	215
1979	4,366	1,125	1,226	281	1,448	286
1980	5,350	1,150	1,583	396	1,869	352
1981	6,389	1,346	2,352	326	1,955	410
1982	5,939	1,322	1,921	368	1,881	447
1983	4,078	607	1,065	139	1,845	422
1984	4,645	422	1,301	121	2,266	535
1985	5,671	790	1,562	175	2,577	567
1986	5,342	258	1,448	125	2,920	591
1987(forecast)	5,571	260	1,563	220	2,943	585
1988(forecast)	5,758	270	1,977	135	2,810	566
1989(forecast)	5,764	266	1,781	129	2,974	615
1990(forecast)	5,506	263	1,782	109	2,835	517

a. For companies not reporting 1989 and 1990 forecasts, data extrapolated from earlier years.

TABLE 16-2
GAS UTILITY INDUSTRY CONSTRUCTION EXPENDITURES, BY TYPE OF FACILITY, 1980–1986

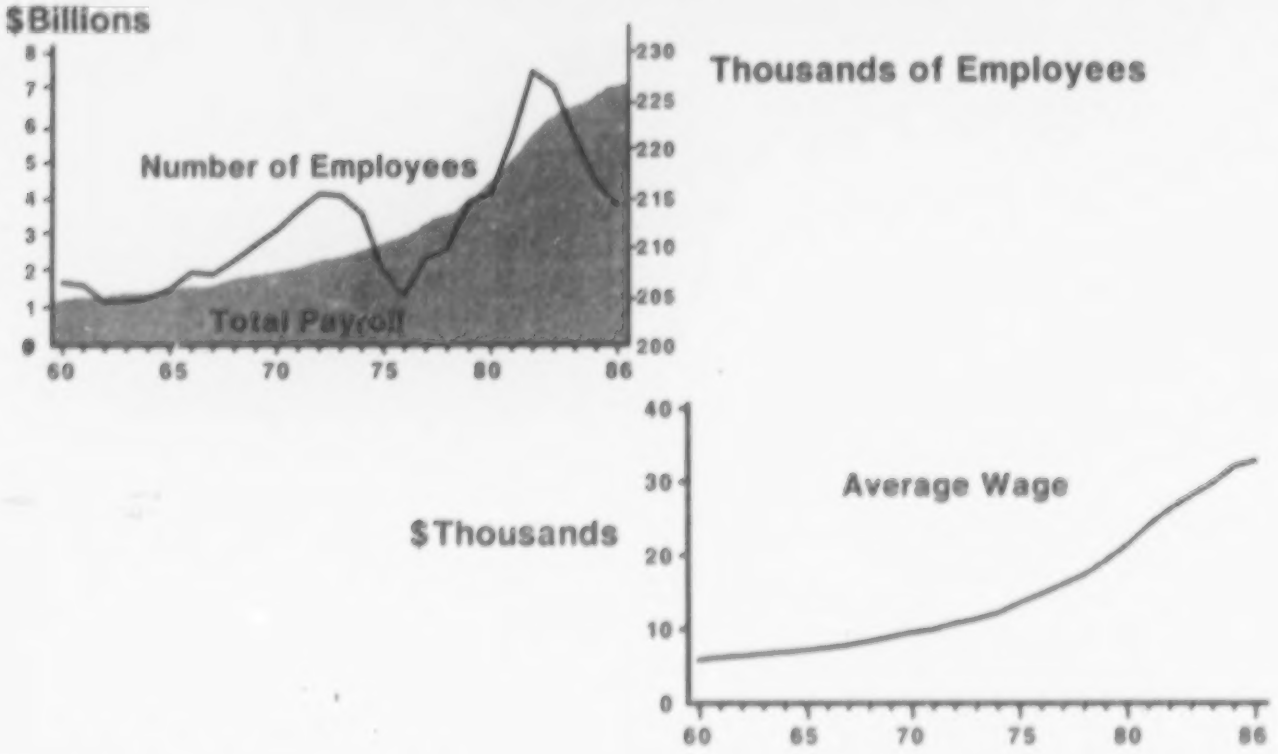
	1980	1981	1982	1983	1984	1985	1986
Production and Storage	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
SNG Plant	3.1	2.3	2.7	0.5	0.8	0.3	0.5
LNG Plant	0.1	0.1	a	0.8	0.4	0.5	0.6
Propane Plant	2.3	3.0	3.8	7.3	11.3	0.6	1.8
Exploration and Drilling	18.2	18.7	22.1	22.6	25.7	28.5	32.2
Other[b]	72.3	71.1	66.1	65.8	54.5	64.9	51.3
LNG Storage	1.3	0.2	2.0	1.7	5.0	3.9	9.9
Other Storage	2.6	4.6	3.2	1.3	2.2	1.4	3.7
LNG Ships	0.0	0.0	0.0	0.0	a	0.0	0.0
Transmission	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
New and Replacement Pipe	70.4	79.6	77.3	72.5	73.2	72.4	76.9
Compressor Stations	20.1	13.8	18.8	21.4	20.6	21.3	17.4
Other	9.6	6.6	3.9	6.1	6.2	6.4	5.7
Distribution	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
New and Replacement Pipe	86.2	85.8	85.8	87.9	87.5	87.5	92.4
Compressor Stations	4.1	4.5	3.9	2.6	3.9	4.5	a
Other	9.7	9.7	10.3	9.5	8.6	8.0	7.6

a. Less than 0.1 percent.
b. Includes gathering.

SECTION 17
PERSONNEL DATA

	1986	% Change 86/85
Gas Utility Employees		
(Thousands)		
Total	214.3	− 1.0
Distribution	61.8	-- 0.0
Transmission	46.9	+ 1.4
Integrated	39.8	− 8.0
Combination	53.5	+ 0.8
Municipals	12.3	− 1.7

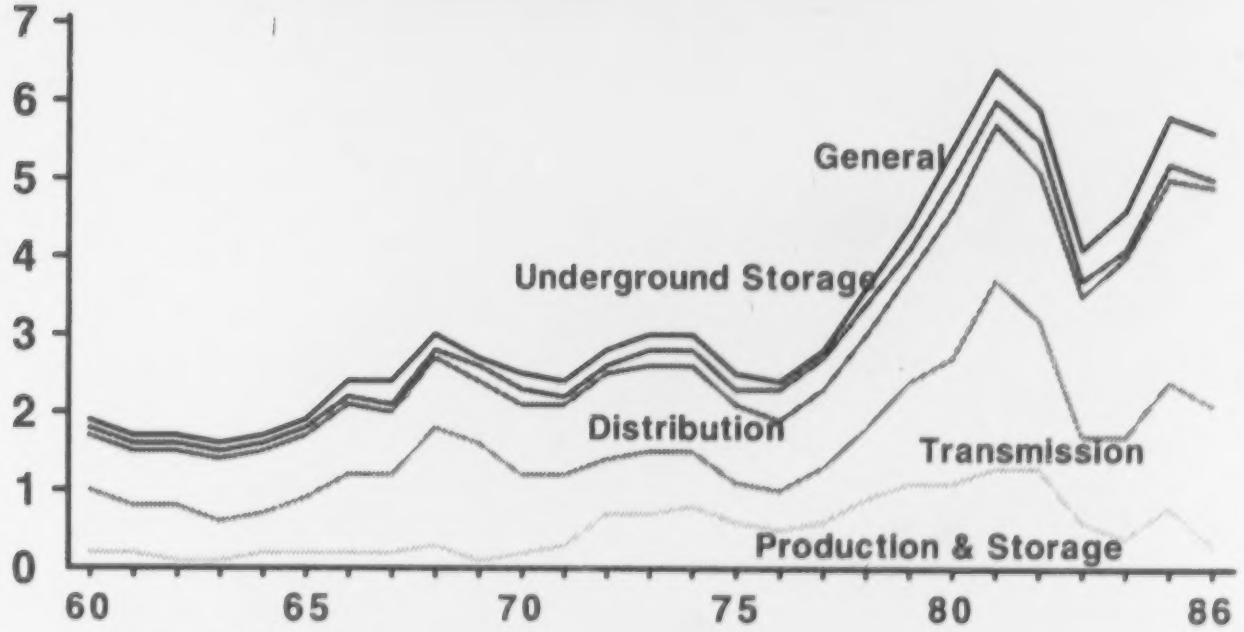
GAS UTILITY INDUSTRY PAYROLL, EMPLOYEES AND AVERAGE WAGE



REFERENCE: TABLE 17-1

CHART 16-1

GAS UTILITY INDUSTRY CONSTRUCTION EXPENDITURES (BILLIONS OF DOLLARS)



REFERENCE: TABLE 16-1

PERSONNEL DATA

TABLE 17-1
GAS UTILITY INDUSTRY EMPLOYEES AND PAYROLL
1960–1986

Year	Average Number of Employees (Thousands)	Total Payroll (Thousands)	Average Wage per Employee
1960	206.4	$1,214,565	$ 5,880
1961	206.1	1,268,437	6,150
1962	204.4	1,316,057	6,440
1963	204.5	1,377,729	6,740
1964	204.8	1,420,754	6,940
1965	205.7	1,480,397	7,200
1966	207.4	1,556,577	7,500
1967	207.2	1,640,397	7,920
1968	208.6	1,759,784	8,440
1969	210.2	1,890,490	8,990
1970	211.7	2,021,197	9,550
1971	213.7	2,142,892	10,028
1972	215.4	2,321,932	10,780
1973	215.2	2,449,075	11,381
1974	213.4	2,606,903	12,216
1975	207.6	2,817,150	13,570
1976	205.1	3,044,605	14,844
1977	208.8	3,371,856	16,149
1978	209.8	3,647,057	17,382
1979	214.6	4,134,270	19,265
1980	215.4	4,612,791	21,415
1981	220.9	5,313,445	24,057
1982	227.8	5,998,666	26,342
1983	226.3	6,365,305	28,128
1984	221.2	6,602,168	29,849
1985	216.6	6,959,057	32,132
1986	214.3	7,052,871	32,903

TABLE 17-2
GAS UTILITY INDUSTRY EMPLOYEES AND PAYROLL BY TYPE OF PAYROLL AND TYPE OF COMPANY, 1960–1986

(Thousands)

	1960	1965	1970	1975	1980	1984	1985	1986
Total								
Employees	206.4	205.7	211.7	207.6	215.4	221.2	216.6	214.3
Payroll—Total	$1,214,565	$1,480,397	$2,021,197	$2,817,150	$4,612,791	$6,602,168	$6,959,057	$7,052,871
Operating	914,438	1,146,226	1,606,321	2,292,448	3,652,941	5,292,915	5,515,089	5,699,366
Construction	209,082	262,792	325,546	380,835	627,706	890,048	962,353	983,854
Miscellaneous	62,045	71,379	89,330	143,867	332,144	419,205	481,615	369,651
Investor Owned—Total								
Employees	a	a	a	196.3	202.7	208.9	204.5	202.0
Payroll—Total	a	a	a	$2,675,092	$4,379,653	$6,285,649	$6,629,132	$6,710,064
Operating	a	a	a	2,184,446	3,463,437	5,016,924	5,227,943	5,400,980
Construction	a	a	a	357,221	594,326	862,091	993,035	954,536
Miscellaneous	a	a	a	133,425	321,890	406,634	468,154	354,548
Distribution								
Employees	a	a	a	51.3	52.1	46.2	61.8	61.8
Payroll—Total	a	a	a	$697,552	$1,040,436	$1,241,732	$1,736,309	$1,801,891
Operating	a	a	a	567,947	831,076	1,024,387	1,407,131	1,458,518
Construction	a	a	a	98,257	152,964	166,118	233,723	245,406
Miscellaneous	a	a	a	31,348	56,396	51,227	95,455	97,967
Transmission								
Employees	31.4	29.6	32.4	37.2	45.2	47.2	46.3	46.9
Payroll—Total	$199,701	$228,493	$331,955	$574,275	$1,178,706	$1,663,635	$1,786,918	$1,803,128
Operating	166,064	187,521	266,685	470,418	873,199	1,272,709	1,341,552	1,475,323
Construction	21,955	30,650	44,869	53,832	108,974	149,100	156,730	136,355
Miscellaneous	11,682	10,322	20,401	50,025	196,533	241,826	288,636	191,450
Integrated								
Employees	a	a	a	55.4	53.2	65.7	43.3	39.8
Payroll—Total	a	a	a	$676,967	$1,061,520	$1,800,005	$1,355,107	$1,279,915
Operating	a	a	a	548,291	873,837	1,497,310	1,158,017	1,074,125
Construction	a	a	a	91,439	138,062	211,774	146,519	166,366
Miscellaneous	a	a	a	37,237	49,621	90,921	50,571	39,424
Combination								
Employees	a	a	a	52.4	52.2	49.7	53.1	53.5
Payroll—Total	a	a	a	$726,298	$1,098,991	$1,580,277	$1,750,798	$1,825,130
Operating	a	a	a	597,790	885,325	1,222,518	1,321,243	1,393,014
Construction	a	a	a	113,693	194,326	335,099	396,063	406,409
Miscellaneous	a	a	a	14,815	19,340	22,660	33,492	25,707

a. Not available.
Note: Data by company type not directly comparable from year to year due to acquisitions and mergers. See page ix.

TABLE 17-3
EMPLOYEE ACCIDENT INCIDENT AND SEVERITY RATES OF SELECTED INDUSTRIES, 1985[a]

	Rate	
	Incident	Severity
Gas Utilities[b]	**2.92**	**17.47**
All Industries	**1.98**	**19.70**
Agricultural Chemicals	.65	16.92
Aircraft	.94	14.89
Air Transportation	5.16	17.44
Bituminous Coal	1.68	27.38
Cement	2.49	17.27
Chemical	.52	21.15
Communications	.90	16.67
Construction	3.31	17.82
Electric, Electronic Equipment	.88	15.91
Electric Service	1.40	18.57
Fabricated Metal Products	2.02	19.80
Food	3.29	19.76
Furniture and Fixtures	1.91	15.71
General Government	5.73	17.10
Iron and Steel Foundries	1.63	23.93
Leather	2.68	19.03
Lumber and Wood Products	4.33	24.25
Machinery, excluding Electrical	1.59	18.24
Meat Products	4.87	16.02
Metal Mining	2.02	33.66
Motor Vehicles	.89	25.84
Nonferrous Rolling, Drawing	1.43	23.08
Nonmetallic Minerals	1.26	37.30
Oil and Gas Extraction	1.05	25.71
Paper	1.87	28.34
Petroleum and Coal Products	.76	22.37
Pipeline Transportation	.99	19.19
Primary Nonferrous Metals	1.80	23.89
Printing and Publishing	2.47	17.41
Railroad Equipment	5.34	32.58
Railroad Transportation	3.43	38.78
Rubber and Plastics	2.14	18.69
Services	2.89	13.84
Ship and Boat Building	6.06	9.74
Steel	1.34	30.60
Stone, Clay and Glass	2.69	26.39
Textile	.46	30.43
Transit	9.96	19.08
Trucking	6.08	26.48
Water Transportation	2.71	36.53
Wholesale and Retail Trade	1.86	18.28

a. Incident rate is the number of disabling injuries per 100 full-time employees. Severity rate is average lost workdays per injury.
b. Gas figures derived from National Safety Council data.
Source: National Safety Council, *Accident Facts*, 1986.

TABLE 17-4
DEATH RATES OF WORKERS, BY MAJOR INDUSTRIES, 1985

	Deaths	
	Total	Per 100,000 Workers
All Industries	**11,600**	**49**
Agriculture	1,600	49
Construction	2,200	37
Government	1,300	8
Manufacturing	1,200	6
Mining, Quarrying, Oil and Gas Wells	500	50
Service	1,900	6
Trade	1,300	5
Transportation and Public Utilities	1,600	29
Gas[a]	13	5.78

a. Included in Transportation and Public Utilities. Data derived from A.G.A. *Report of Occupational Injuries and Illnesses in the Gas Utility and Transmission Industry in the United States*, and does not represent total industry.
Source: National Safety Council; *Accident Facts*, 1986; gas figures derived from A.G.A. data.

APPENDIX A
GLOSSARY

(This is an abbreviated list of gas utility industry definitions. A complete list is contained in the *Glossary for the Gas Industry*).

Accident Frequency Rate: See Injury Frequency Rate, Disabling.

Accident Incident Rate: See Injury Incident Rate.

Accident Severity Rate: See Injury Severity Rate, Disabling.

Additions (To Utility Plant):

Gross Additions: Cost of construction, generally including overhead and allowance for funds used during construction (interest during construction), cost of land, land rights, and mineral interests, gas capitalized in underground storage, used facilities acquired, and the purchase cost of an acquired operating unit or systems of utility plant. See Construction Expenditures.

Net Additions: Gross additions less retirements and adjustments of utility plant. It is the net change in utility plant between two dates.

Anthracite: A hard coal containing little volatile matter, low ash and generally having a heating value of 11,000–12,000 Btu/lb.

Associated Natural Gas: See Gas, Natural.

Associated Number of Customers: See Customers, Average Number of.

Average Revenue Per Unit of Gas Sales (By Class of Service): Revenue from the sale of gas to a class of service, exclusive of forfeited discounts and penalties, divided by the corresponding number of units sold. Units may be therms, Btu's, or cubic feet.

Barrel (Oil): A volumetric unit of measurement equivalent to 42 U.S. standard gallons.

Bcf: 1,000,000,000 cubic feet; Billion cubic feet.

Bituminous Coal: Ranking of soft coal generally having a heating value of 11,000–13,000 Btu/lb., high in volatile matter and ash.

Blue Gas: See Water Gas.

Boiler Fuel Gas: Natural gas used as a fuel for the generation of steam (or hot water).

Bottled Gas: In the industry, liquefied petroleum gas contained under moderate pressure in cylinders, sometimes referred to as bottles. Usually propane and/or butane.

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Capacity, Effective: The maximum load which a machine, apparatus, device, plant or system is capable of carrying under existing service conditions.

Carbon Black: Almost pure amorphous carbon consisting of extremely fine particles, usually produced from gaseous or liquid hydrocarbons by controlled combustion with a restricted air supply or by thermal decomposition.

Casinghead Gas: Unprocessed natural gas containing gasoline vapors produced from a reservoir containing oil.

City Gate (Town Border Station): See Gate Station.

Class of Service: Defines the type of customer. The common classes of service applied to ultimate consumers, and considerably more completely described in the A.G.A. publication "Definitions of a Gas Customer and Classes of Service for Industry Reporting Purposes" are:

1. **Residential Service**
   Covers service to customers for domestic purposes (single, multifamily or mobile homes, etc.). In residential service, the number of housing units within a structure determines the customer classification.
2. **Commercial Service**
   Covers service to customers engaged in wholesale or retail trade, agriculture, communications, finance, fisheries, forestry, government, insurance, real estate, transportation, etc., and to customers not directly involved in other classes of service.
3. **Industrial Service**
   Covers service to customers engaged primarily in a process which either involves the extraction of raw materials from the earth, or a change of raw or unfinished materials into another form or product.
4. **Other Services**
   Service to municipalities or divisions (agencies) of State or Federal Governments under special contracts or agreements or service classifications, which are applicable only to public authorities using gas for general or institutional purposes. (Exclude sales properly included under items 2 or 3 above, such as manufacturing arsenals or publicly-owned power systems).
5. **Sales for Resale** (Uniform System of Accounts, 483)
   Service to other utility companies, governmental agencies (municipal, county, state or federal), rural cooperatives, etc., for distribution and resale to ultimate customers. Service to other utilities for use by them and not for distribution and resale, is to be classified as residential, commercial, or industrial, depending upon the primary business or economic activity.

Coal Gas: Manufactured gas made by distillation or carbonization of coal in a closed coal gas retort, coke oven, or other vessel.

Combination Gas Utility: Utility which supplies both gas and some other utility service (electricity, water, etc.). For purposes of A.G.A. statistics, a combination utility derives at least 5 percent but less than 95 percent of its total sales revenues from gas operations. See Appendix C for a partial list of combination companies.

Commercial Service: See Class of Service.

Communities (Served): A community is a contiguous built-up area, incorporated or unincorporated, commonly recognized as a separate entity. Any incorporated area and its adjacent built-up unincorporated area may be counted as one community.

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British Thermal Unit (Btu): The quantity of heat that must be added to one pound of water to raise its temperature one degree Fahrenheit from 58.5 to 59.5 degrees Fahrenheit under standard pressure of 30 inches of mercury.

By-Products (Residuals): Secondary products which are obtained from the processing of a raw material and have commercial value. They may be the residues of the gas production process, such as coke, tar, and ammonia. or they may be the result of further processing of such residues, such as ammonium sulphate.

Compressor Horsepower: See Horsepower, Compressor.

Compressor Station: Any permanent combination of facilities which supplies the energy to move gas at increased pressure from fields, in transmission lines or into storage. For reporting to A.G.A. include field (other than temporary) line, and storage compressor stations of producing and transmission companies; distribution companies should include underground storage compressor stations and stations used for transporting gas between local distribution systems but not booster or pumping stations used within a local distribution system.

Condensate: The liquid resulting when a vapor is subjected to cooling and pressure reduction. Also, liquid hydrocarbons condensed from gas and oil wells. Compare Liquids, Natural Gas.

Construction Expenditures: Cost of construction, including overheads and allowance for funds used during construction, for additions to, renewals, and replacements of plant facilities, but excluding the purchase cost of an acquired operating unit or system of utility plant, accounting transfers and adjustments to utility plant, and cost to remove plant facilities from service.

Conversion to Natural Gas: Changing the gas service to ultimate customers from a fuel other than natural gas to natural gas, including adjustment of consumers' appliances to perform satisfactorily with natural gas. Natural gas does not necessarily mean straight natural gas; stabilizing the heat content of the sendout gas by diluent gases or enriching gases is not considered to change the basic character of natural gas. For the purpose of uniform reporting a company should be considered a natural gas company when 95 percent of the system has been converted.

Cubic Foot: The most common unit of measurement of gas volume. It is the amount of gas required to fill a volume of one cubic foot under stated conditions of temperature, pressure, and water vapor.

Current Gas: See Storage, Underground.

Cushion Gas: The gas required in a depleted reservoir, used for storage of natural gas, so that reservoir pressure is such that the storage gas may be recovered.

Customer: An individual, firm or organization which purchases service at one location under one rate classification, contract, or rate schedule. If service is supplied at more than one location or under more than one rate schedule, each location and rate schedule shall be counted as a separate customer unless the consumption of the several locations is combined before billing and billed on one rate schedule.

Customers, Average Number of: The average number of customers is determined by summing the customers for each of the periods involved and dividing by the number of periods. See Customer.

Customers, End of Year: The number of customers at December (or the last month of a fiscal year) including all billing cycles. See Customers, Average Number of.

Degree Day, Heating: A measure of the coldness of the weather experienced, based on the extent to which the daily mean temperature falls below a reference temperature, usually 65°F. For example, on a day when the mean outdoor dry-bulb temperature is 35°F., there would be 30 degree days experienced. A daily mean temperature usually represents the sum of the high and low readings divided by two.

Demand: The rate at which gas is delivered to or by a system, part of a system, or a piece of equipment, expressed in cubic feet or therms or multiples thereof, for a designated period of time called the demand interval. Compare Load.

Design Day: A 24-hour period of demand which is used as a basis for planning gas capacity requirements.

Design Day Availability: The amount of each type of gas arranged to be available on the design day and the maximum combination of such supplies. (In the case of purchased natural gas, the maximum day allocation, maximum day contract quantity, or FERC authorization).

Design Day Temperature: The mean temperature assumed for the Design Day.

Dissolved Natural Gas: See Gas, Natural.

Distribution Company, Gas: Company which obtains the major portion of its gas operating revenues from the operation of a retail gas distribution system, and which operates no transmission system other than incidental connections within its own system or to the system of another company. For purposes of A.G.A. statistics, a distribution company obtains at least 90 percent of its gas operating revenues from sales to ultimate customers *and* classifies at least 90 percent of mains (other than service pipe) as distribution. Compare Integrated Company, Gas; Transmission Company, Gas. See Appendix C for a partial list of Distribution Companies.

Distribution Mains: See System Type.

Distribution System, Gas: See System Type.

Dry Natural Gas: See Gas, Natural.

Enriching: Increasing the heat content of a gas by mixing with it a gas of higher Btu content.

Exchange Gas: Gas that is received from (or delivered to) another party in exchange for gas delivered to (or received from) such other party.

Extraneous Gas: See Storage, Underground.

Field Pipeline: See System Type.

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Firm Service: service offered to customers (regardless of Class of Services) under schedules or contracts which anticipate no interruptions. The period of service may be for only a specified part of the year as in Off-Peak Service. Certain firm service contracts may contain clauses which permit unexpected interruption in case the supply to residential customers is threatened during an emergency. Compare Interruptible Service; and Off-Peak Service.

Foreign Gas: See Storage, Underground.

Gallon: A unit of liquid measure. The U.S. gallon contains 231 cubic inches or 8.3359 pounds avoirdupois of distilled water at its maximum density and with the barometer at 30 inches.

Gas, Dry: See Gas, Natural.

Gas, Liquefied Petroleum (LPG): A gas containing certain specific hydrocarbons which are gaseous under normal atmospheric conditions but can be liquefied under moderate pressure at normal temperatures. Propane and butane are the principal examples.

Gas, Manufactured: A gas obtained by destructive distillation of coal, or by the thermal decomposition of oil, or by the reaction of steam passing through a bed of heated coal or coke or catalyst beds. Examples are coal gases, coke oven gases, producer gas, blast furnace gas, blue (water) gas, and carbureted water gas. Btu content varies widely.

Gas, Natural: A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in porous geologic formations beneath the earth's surface, often in association with petroleum. The principal constituent is methane.

Associated: Free natural gas in immediate contact, but not in solution with crude oil in the reservoir.

Dissolved: Natural gas in solution in crude oil in the reservoir.

Dry: Gas whose water content has been reduced by a dehydration process. Gas containing little or no hydrocarbons commercially recoverable as liquid product. Specified small quantities of liquids are permitted by varying statutory definition in certain states.

Liquefied (LNG): Natural gas which has been liquefied by reducing its temperature to minus 260°F at atmospheric pressure. It remains a liquid at −116°F and 673 psig. In volume it occupies 1/600 of that of the vapor.

Liquids: Those liquid hydrocarbon mixtures which are gaseous at reservoir temperatures and pressures but are recoverable by condensation or absorption. Natural gasoline and liquefied petroleum gases fall in this category.

Non-Associated: Free natural gas not in contact with, nor dissolved in, crude oil in the reservoir.

Sour: Gas found in its natural state, containing such amount of compounds of sulphur as to make it impractical to use, without purifying, because of its corrosive effect on piping and equipment.

Substitute: A gas manufactured from carbonaceous material whose characteristics are substantially interchangeable with natural gas. The resultant gas is composed primarily of methane. At this writing, SNG feedstocks are the light hydrocarbons, propane, butane and the naphthas. Development is underway of processes for production from heavier feedstocks, coal, peat and solid wastes.

Sweet: Gas found in its natural state, containing such small amount of compounds of sulphur that it can be used without purifying, with no deleterious effect on piping and equipment.

Wet: Wet natural gas is unprocessed natural gas or partially processed natural gas produced from strata containing condensable hydrocarbons. The term is subject to varying legal definitions as specified by certain state statutes.

Gas, Oil: A gas resulting from the thermal decomposition of petroleum oils, composed mainly of volatile hydrocarbons and hydrogen. The true heating value of oil gas may vary between 800 and 1600 Btu per cubic foot depending on the operating conditions and feedstock properties.

Gas, Substitute Natural (SNG): See Gas, Natural.

Gas Transported for Others: That volume of gas owned by another company received into and transported through any part of the transmission system under a transportation tariff.

Gate Station: Generally, a location at which gas changes ownership, from one party to another, neither of which is the ultimate consumer. It should be noted, however, that the gas may change from one system to another at this point without changing ownership. Also referred to as city gate station, town border station, or delivery point.

Gathering Pipeline: See System Type.

Heating Value: The amount of heat produced by the complete combustion of a unit quantity of fuel. The gross or higher heating value is that which is obtained when all of the products of combustion are cooled to the temperature existing before combustion, the water vapor formed during combustion is condensed, and all the necessary corrections have been made. The net or lower heating value is obtained by subtracting the latent heat of vaporization of the water vapor formed by the combustion of the hydrogen in the fuel, from the gross or higher heating value.

Holder, Gas: A gas-tight receptacle or container in which gas is stored for future use. (1) at approximately constant pressure (low pressure containers) in which case the volume of the container changes; and (2) in containers of constant volume (usually high pressure containers) in which case the quantity of gas stored varies with the pressure.

Holding Company: A gas holding company is a corporation that is formed for the purpose of owning stock in other gas companies.

Horsepower, Compressor: The horsepower rating on the nameplate.

Horsepower, (HP): A unit of power; equivalent to 33,000 foot-pounds per minute, or 550 foot-pounds per second (mechanical horsepower), or 0.746 kilowatts.

Hydrocarbon: A chemical compound composed solely of hydrogen and carbon. The compounds having a small number of carbon and hydrogen atoms in their molecule are usually gaseous; those with a larger number of atoms are liquid, and the compounds with the largest number of atoms are solid.

Industrial Service: See Class of Service.

Injury Frequency Rate, Disabling: Number of disabling injuries per million man-hours worked. Such injuries include disabilities and fatalities arising out of and occurring during the course of employment. A disabling injury is one which renders the employee unable to return to work on one or more days after the injury.

Injury Incident Rate: Number of injuries per 100 full-time employees.

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Injury Severity Rate, Disabling: Number of days lost due to disabling per million manhours worked, including appropriate time charges according to a predetermined schedule for permanent disability cases and/or fatalities. Subsequent to 1976, severity rate is average lost workdays per injury.

Integrated Company, Gas: A company which obtains a significant portion of its gas operating revenues from the operations of both a retail gas distribution system and gas transmission system. For purposes of A.G.A. statistics, an integrated company obtains less than 90 percent but more than 10 percent of its gas operating revenues from either its retail or transmission operations or does not meet the classification of mains established for distribution or transmission companies. Compare Distribution Company, Gas; Transmission Company, Gas. See Appendix C for a partial list of Integrated Companies.

Interruptible Service: Low priority service offered to customers under schedules or contracts which anticipate and permit interruption on short notice, generally in peak-load seasons, by reason of the claim of firm service customers and higher priority users. Unlike Off-Peak Service, gas is available at any time of the year if the supply is sufficient.

Line Pack, Gas Delivered from: That volume of gas delivered to the markets supplied by the net change in pressure in the regular system of mains, transmission and/or distribution. For example, the change in the content of a pipeline brought about by the deviation from steady flow condition.

Liquefied Natural Gas (LNG): See Gas, Natural.

Liquefied Petroleum Gas (LPG): See Gas, Liquefied Petroleum.

Load: The amount of gas delivered or required at any specified point or points on a system; load originates primarily at the gas consuming equipment of the customers. Also, to load a pressure regulator is to set the regulator to maintain a given pressure as the rate of gas flow through the regulator varies. Compare Demand.

Local Storage: See Storage, Local.

Mcf: 1,000 cubic feet; Thousand cubic feet.

MMBtu: 1,000,000 Btu; Million Btu.

MMcf: 1,000,000 cubic feet; Million cubic feet.

Main: A distribution line that serves as a common source of supply for more than one gas service line.

Distribution Mains: See System Type.

Field and Gathering Pipeline: See System Type.

Transmission Pipeline: See System Type.

Manufactured Gas: See Gas, Manufactured.

TABLE 17-5
EMPLOYEE DISABLING INJURY RATES, BY TYPE OF GAS UTILITY, 1960-1986

Z16.1 DATA

	All Reporting Gas Utilities				Natural Gas Distribution and Integrated Companies		Natural Gas Transmission Companies		Natural Gas Combination Companies[a]	
	Reporting Companies		Rate[b]		Rate		Rate		Rate	
Year	Number	Average Employees	Frequency[c]	Severity[d]	Frequency[c]	Severity[d]	Frequency[c]	Severity[d]	Frequency[c]	Severity[d]
1960	554	195,591	7.01	563	7.45	616	5.83	332	e	e
1965	625	198,815	5.69	402	5.93	314	4.34	753	e	e
1970	719	200,493	6.34	548	6.66	522	5.02	686	e	e
1971	833	210,589	7.15	473	7.48	444	5.70	634	e	e
1972	736	205,371	8.38	535	8.98	495	5.88	762	e	e
1973	708	207,423	8.18	547	8.77[f]	373[f]	5.67	1,287	e	e
1974	644	208,283	9.08	357	9.75[g]	362[g]	6.12	333	e	e
1975	515	193,957	9.27	570	9.99[g]	518[g]	6.37	785	e	e
1976	407	153,538	11.17	365	12.87[g]	403[g]	5.31	236	e	e

OSHA DATA

	All Reporting Gas Utilities				Natural Gas Distribution and Integrated Companies		Natural Gas Transmission Companies		Natural Gas Combination Companies	
	Reporting Companies		Rate		Rate		Rate		Rate	
Year	Number	Average Employees	Incident[h]	Severity[i]	Incident[h]	Severity[i]	Incident[h]	Severity[i]	Incident[h]	Severity[i]
1977	433	243,773	2.46	18.01	3.21	15.86	1.09	20.63	2.00	20.54
1978	423	236,661	2.46	17.11	3.41	14.86	1.10	22.51	2.10	18.90
1979	443	256,797	2.52	16.76	3.57	15.01	1.16	24.71	1.97	17.81
1980	453	262,173	2.62	18.20	3.45	14.28	1.15	32.17	2.26	21.34
1981	437	278,402	2.52	25.09	3.43	17.08	1.09	26.34	2.17	37.53
1982	424	275,725	2.33	18.36	3.39	13.63	1.15	23.10	1.90	24.30
1983	431	272,236	2.33	18.02	3.44	13.91	1.09	20.55	1.82	24.66
1984	415	254,765	2.52	16.01	3.67	13.20	1.02	19.60	1.91	21.11
1985	439	229,658	2.36	17.12	3.64	14.28	1.07	47.02	1.13	15.14
1986	419	224,696	2.37	17.68	3.49	16.06	.95	38.21	1.58	15.56

a. Included in "Natural Gas Distribution" and "Integrated Companies" under Z16.1 data.
b. Includes "Manufactured and Mixed Gas" and "Liquefied Petroleum Gas."
c. Frequency Rate is number of disabling injuries per million man-hours worked for each injury resulting in a minimum of one day's loss of time.
d. Severity Rate is number of days lost due to disabling injuries, per million man-hours worked.
e. Not available under Z16.1 data.
f. Includes "Manufactured and Mixed Gas."
g. Includes "Manufactured and Mixed Gas" and "Liquefied Petroleum Gas."
h. Incident Rate is total injuries per 100 full-time employees.
i. Severity Rate is average lost workdays per injury.

NOTE: Companies are now required to report under the Occupational Safety and Health Act (OSHA) instead of ANST Standard Z16.1.
Source: A.G.A. *Disabling Injury Experience*, 1986.

Marketable Natural Gas: Raw gas from which certain hydrocarbons and non-hydrocarbon compounds have been removed by processing. Marketable natural gas is often referred to as pipeline gas, residue gas, or sales gas.

Maximum Day:
Allocation: See Design Day Availability.
Sendout: See Sendout, Maximum Day.

Minimum Day: See Sendout, Minimum Day.

Naphtha: Any of various volatile, often flammable liquid hydrocarbon mixtures used chiefly as solvents and diluents and as raw materials for conversion to gasoline and substitute natural gas (SNG).

Native Base Gas: See Storage, Underground.

Natural Gas: See Gas, Natural.

Natural Gas, Associated: See Gas, Natural.

Natural Gas, Dissolved: See Gas, Natural.

Natural Gas, Dry: See Gas, Natural.

Natural Gas, Liquefied: See Gas, Natural.

Natural Gas Liquids: See Gas, Natural.

Natural Gas, Non-Associated: See Gas, Natural.

Natural Gas Reserves: See Reserves.

Natural Gas, Sour: See Gas, Natural.

Natural Gas, Sweet: See Gas, Natural.

Natural Gas, Wet: See Gas, Natural.

Natural Gasoline: Liquid removed from natural gas by absorption or refrigeration and containing hydrocarbons heavier than butane.

Off-Peak Service: Service made available on special schedules or contracts but only for a specified part of the year during the off-peak season. Compare Interruptible Service.

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Oil Gas: See Gas, Oil.

Oil, Heavy: Heavy, thick and viscous oils. Usually refinery residuals commonly specified as grades 5 and 6.

Oil, Light: Generally, all oils lighter than residual fuel oils No. 5 and No. 6. Oils that have a low specific gravity, usually products of controlled distillation of crude oil but also including by-product benzol and toluol.

Peak Day: The 24-hour day period of greatest total gas sendout. Compare Design Day.

Peak Shaving: Supplying fuel gas for distribution system from an auxiliary source (of limited supply and higher cost) during periods of maximum demand when the primary source is not adequate.

Pipeline: All parts of those physical facilities through which gas is moved in transportation, including pipe, valves and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders and fabricated assemblies. See System Type.

Pressure, Absolute: Pressure above that of a perfect vacuum. It is the sum of gauge pressure and atmospheric pressure.

Pressure, Gauge (psig): Pounds per square inch above atmospheric pressure.

Producer Gas (Also, Manufactured Gas): A combustible gas made in a furnace or apparatus by circulating air or a mixture of air and steam through a layer of incandescent material consisting chiefly of carbon monoxide, hydrogen and nitrogen.

Propane (C_3H_8): A gaseous member of the paraffin series of hydrocarbons, which when liquified under pressure is one of the components of liquefied petroleum (LP) gas. Contains approximately 2,500 Btu per cubic foot (at 60°F and 30″ mercury, and 91,740 Btu per gallon).

Recoverable Natural Gas Reserves: See Reserves, Recoverable Natural Gas.

Refinery Gas: See Gas, Oil.

Reforming: A chemical process using heat in presence of a catalyst to break down a substance into desired components, such as in the reforming of natural gas or light oils into lower Btu fuel gas.

Repressuring: Forcing gas, under pressure, into the oil reservoir in an attempt to increase the recovery of crude oil; also done with water.

Resale Service: See Class of Service, Sales for Resale.

Reserves, Energy: Refers to the bank of natural resources, such as natural gas, natural gas liquids, petroleum, coal, lignite, and energy available from water power, and solar and geothermal energy.

Estimated Potential Natural Gas Reserves: Refers to an estimate of the ultimate finding of natural gas in a specified area, whether or not presently considered proved or recoverable.

Estimated Proved Natural Gas Reserves: An estimated quantity of natural gas which analysis of geologic and engineering data demonstrates with reasonable certainty to be recoverable in the future from known oil and gas reservoirs, under existing economic and operating conditions. Reservoirs that have demonstrated the ability to produce by either actual production or conclusive formation test are considered proved.

Saturation, Appliance or Customer: The number of specified appliances, or users, divided by the basic units or total potential of the universe involved, i.e., Gas Heating Saturation related to customers is the total number of customers with space heating divided by the total number of customers. Saturation should not be used alone but should be associated with customers, families, households, population or other qualifying terms indicating the universe referred to. For industry statistics, saturation based on customers served is used.

Sendout, Gas: Total gas produced, purchased (including exchange gas receipts), or net withdrawn from underground storage within a specified time interval, measured at the point(s) of production and/or purchase, and/or withdrawal, adjusted for changes in local storage quantity. It comprises gas sales, exchange deliveries, gas used by company and unaccounted for gas. Expressed in various units such as therms, Btu's, cubic feet, etc.

Sendout, Maximum Day: The greatest actual total gas sendout occurring in a specified 24-hour period. Compare Design Day; Peak Day.

Sendout, Minimum Day: The smallest actual total gas sendout occurring in a specified 24-hour period.

Service (Service Line, Service Pipe): The pipe which carries gas from the main to the customer's meter. Compare Class of Service.

Shrinkage, Natural Gas: The reduction is volume of wet natural gas due to the extraction of some of its constituents, such as hydrocarbon products, hydrogen sulfide, carbon dioxide, nitrogen, helium, and water vapor.

Storage, Buried Pipe (Bottle-Type Holder): A system of storage in especially designed high pressure pipe sections or bottles capable of storing natural gas at pressures near or equal to the pressure of maximum super-compressibility. Not storage in ordinary steel pipe.

Storage, Local: The storage facilities, other than underground storage, that are an integral part of a distribution system, i.e., on the distribution side of the city gate, whether for manufactured, mixed, natural, liquefied petroleum, or liquefied natural gases.

Storage Mains: Those mains used primarily for injection and withdrawal of gas to and from underground storage.

Storage, Underground: The utilization of subsurface facilities for storing gas which has been transferred from its original location for the primary purposes of load balancing. The facilities are usually natural geological reservoirs such as depleted oil or gas fields or waterbearing sands sealed on the top by an impermeable cap rock. The facilities also may be manmade or natural caverns.

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Aquifer Storage: The storage of gas underground in porous and permeable rock stratum, the pore space of which was originally filled with water and in which the stored gas is confined by suitable structure, permeability barriers and hydrostatic water pressure.

Base Gas (Also called cushion gas): The total volume of gas which will maintain the required rate of delivery during an output cycle.

Current Gas: The total volume of gas in a storage reservoir which is in excess of the base gas. Also called Working Gas.

Extraneous Gas: See Stored Gas, this section.

Foreign Gas: See Stored Gas, this section.

Native Gas: The total volume of gas indigenous to the storage reservoir.

Storage Reservoir: That part of the storage zone having a defined limit of porosity and/or permeability which can effectively accept, retain, and deliver gas.

Storage Well: A cased bore hole, extending from the surface into the storage zone, which is used primarily for gas input and/or output purposes.

Stored Gas: Gas physically injected into a storage reservoir.

Ultimate Reservoir Capacity: The total estimated volume of gas that could be contained in storage reservoir when it is developed to the maximum design pressure.

Working Gas: Gas in an underground storage field that is available for market. May also be called Current Gas.

Straight Gas Utility: Company which derives the major portion of its total operating revenues from gas operations. For purposes of A.G.A. statistics, a straight gas utility derives at least 95 percent of its total operating revenues from gas operations. See Combination Gas Utility.

Subbituminous Coal: Ranking of soft coal generally having a heating value of 8,300–13,000 Btu's/lb-high volatile matter and ash.

Substitute Natural Gas: See Gas, Natural.

System Type:

Distribution: Generally mains, services, and equipment which carry or control the supply of gas from the point of local supply to and including the sales meters. The system operates at various pressures as indicated below.

High Pressure: A system which operates at a pressure higher than the standard service pressure delivered to the customer; thus, a pressure regulator is required on each service to control pressure delivered to the customer. Sometimes this is referred to as medium pressure.

Low Pressure or Utilization Pressure: A system in which the gas pressure in the mains and service lines is substantially the same as that delivered to the customers' appliances; ordinarily a pressure regulator is not required on individual service lines.

Field and Gathering: A network of pipelines (mains) transporting natural gas from individual wells to compressor station, processing point, or main trunk pipeline.

Main: The network of distribution piping to which customers' service lines are attached. Generally large pipes are laid in principal streets with smaller laterals extending along side streets and connected at their ends to form a grid; sometimes laterals are brought to dead ends. Compare with Distribution, this section.

Transmission: Pipelines (Mains) installed for the purpose of transmitting gas from a source or sources of supply to one or more distribution centers, or to one or more large volume customers, or a pipeline installed to interconnect sources of supply. In typical cases transmission lines differ from gas mains in that they operate at higher pressures, are longer, and the distance between connections is greater.

Tcf: 1,000,000,000,000 cubic feet; Trillion cubic feet.

Therm: A unit of heating value equivalent to 100,000 British thermal units (Btu).

Transmission Company, Gas: A company which obtains at least 90 percent of its gas operating revenues from sales for resale and/or transportation of gas for others and/or main line sales to industrial customers *and* classifies at least 90 percent of mains (other than service pipe) as field and gathering, storage and/or transmission. Compare Distribution Company, Gas; Integrated Company, Gas. See Appendix C for a partial list of Transmission companies.

Transmission Pipeline: See System Type.

Transmission System: See System Type.

Transportation Volumes to End-Users: Volumes of gas owned by the ultimate consumer (end-user) and delivered to the ultimate consumer's meter by the transporter.

Ultimate Customer: The customer who purchases gas for consumption and not for resale purposes.

Ultimate Reservoir Capacity: See Storage, Underground.

Unaccounted for Gas: The difference between the total gas available from all sources and the total gas accounted for as sales, net interchange and company use. This difference includes leakage or other actual losses, discrepancies due to meter inaccuracies, variations of temperature and/or pressure, other variants, particularly due to measurements being made at different times. In cycle billings, an amount of gas supply used but not billed as of the end of a period. Compare Sendout, Gas.

Underground Storage: See Storage, Underground.

Water Gas (Blue Gas): Made by passing steam over hot coke or other carbonaceous material; it consists of carbon monoxide and hydrogen with varying amounts of carbon dioxide and nitrogen. It burns with a blue flame.

Well, Wildcat: An exploratory well being drilled in unproven territory, that is, in a horizon from which there is no production in the general area.

Wet Natural Gas: See Gas, Natural.

Working Gas: See Storage, Underground.

APPENDIX B
CONVERSION TABLE

The following are some frequently used units of measure and natural gas equivalents in British thermal units (Btu). Read "=" as "contains" between volumes and energy units.
The national average Btu content per cubic foot is used. For state averages, see page 76.

1 Cubic Foot (cf) = 0.02832 Cubic Meters = 1,028.4 Btu
1 Therm = 100,000 Btu ≃ 25,200 Kilocalories ≃ 100 Cubic Feet
1 Mcf = 1,000 Cubic Feet = 28.32 Cubic Meters = 1,028,400 Btu
1 M Therm = 100,000,000 Btu ≃ 25,200,000 Kilocalories
1 MMcf = 1,000,000 Cubic Feet = 1,028,400,000 Btu

Conversion examples:
(1) To convert 2,325 MMcf to trillions of Btu:
(2,325 MMcf) (1,028,400,000 Btu/MMcf)
= 2,391,030,000,000 Btu
≃ 2.391 trillion Btu
(2) To convert 5,000 trillion Btu to millions of cubic feet:
(5,000 trillion Btu) (1 cf/1,028.4 Btu)
≃ 4.862 trillion cf (Tcf)
≃ 4,861,921 MMcf
(2) To convert 22,150 million therms to trillions of Btu:
(22,150 million therms) (100,000 Btu/therm)
= 2,215,000,000 million Btu
= 2,215 trillion Btu
(4) To convert the Btu content of 1 cubic foot at 15.05 psia to 14.73 psia:
(1,049 Btu/cf) (14.73 psia/15.05 psia)
≃ 1,026.7 Btu/cf

For comparative purposes, Btu contents of various energy sources other than natural gas are shown below.*

Fuel Oil (barrel)	
Distillate	5,825,000 Btu
Residual	6,287,000 Btu
Coal (short ton)	
Bituminous and lignite	21,488,000 Btu
Anthracite	20,690,000 Btu
Electricity (kilowatt-hour)	3,412 Btu
Natural gas liquids (barrel)	3,792,000 Btu

* Department of Energy, Energy Information Administration, *Monthly Energy Review*, February 1987.

APPENDIX C
COMPANY LISTINGS

Shown below are 100 selected companies, 25 for each company type, as used in the financial and other sections of this publication. These lists are *not* meant to be *comprehensive.* Inclusion on this list does not imply individual company data may be released.

Distribution

Alabama Gas Corporation
Berkshire Gas Company, The
Boston Gas Company
Brooklyn Union Gas Company, The
Chattanooga Gas Company
Columbia Gas of Kentucky, Inc.
Columbia Gas of Ohio, Inc.
Columbia Gas of Pennsylvania, Inc.
Commonwealth Gas Company
Elizabethtown Gas Company
ENTEX, Inc.
Great Falls Gas Company
Minnegasco, Inc.
Mississippi Valley Gas Company
New Jersey Natural Gas Company
North Shore Gas Company
Northwest Natural Gas Company
Peoples Gas System, Inc.
Providence Gas Company
Richmond Gas Corporation
Southern Connecticut Gas Company, The
Washington Gas Light Company
Washington Natural Gas Company
Wisconsin Gas Company
Wisconsin Natural Gas Company

Transmission

Alabama Tennessee Natural Gas Co.
Algonquin Gas Transmission Company
ANR Pipeline Company
Colorado Interstate Gas Company
Columbia Gas Transmission Corporation
Columbia Gulf Transmission Company
East Tennessee Natural Gas Company
El Paso Natural Gas Company
Great Lakes Transmission Company
Houston Natural Gas Corporation
Midwestern Gas Transmission Company
Natural Gas Pipeline Co. of America
Northwest Pipeline Corporation
Pacific Gas Transmission Company
Panhandle Eastern Pipe Line Company
Southern Natural Gas Company
Texas Eastern Transmission Corporation
Texas Gas Transmission Corporation
Transcontinental Gas Pipe Line Corp.
Transok Pipe Line Company
Transwestern Pipeline Company
Trunkline Gas Company
United Gas Pipeline Company
Valero Transmission Company
Western Gas Supply Company

Integrated

Arkansas Louisiana Gas Company
Arkansas Oklahoma Gas Corporation
Arkansas Western Gas Company
Associated Natural Gas Company
Battle Creek Gas Company
Corning Natural Gas Company
East Ohio Gas Company, The
Enserch Corporation
Intermountain Gas Company
Kansas Nebraska Energy, Inc.
Michigan Consolidated Gas Company
Michigan Gas Utilities Company
Mountain Fuel Supply Company
National Fuel Gas Company
North Carolina Natural Gas Company
North Penn Gas Company
Ohio Valley Gas Corporation
Oklahoma Natural Gas Company
Peoples Natural Gas Co., The
Public Service Company of North Carolina, Inc.
Rio Grande Valley Gas Company
Southern California Gas Company
Terre Haute Gas Corporation
Vermont Gas Systems, Inc.
Western Kentucky Gas Company

Combination

Baltimore Gas and Electric Company
Central Illinois Light Company
Cincinnati Gas and Electric Company
Consolidated Edison Co. of NY Inc.
Consumers Power Company
Dayton Power & Light Company
Florida Public Utilities Company
Illinois Power Company
Iowa Electric Light & Power Company
Iowa-Illinois Gas & Electric Company
Kansas Power & Light Company
Long Island Lighting Company
Louisville Gas & Electric Company
Madison Gas & Electric Company
Montana-Dakota Utilities Company
Montana Power Company
Niagara-Mohawk Power Corporation
Northern Indiana Public Service Company
Pacific Gas & Electric Company
Philadelphia Electric Company
Public Service Co. of Colorado
Public Service Electric & Gas Company
San Diego Gas & Electric Company
Washington Water Power Company
Wisconsin Public Service Corporation

APPENDIX D
GAS REQUIREMENTS COMMITTEE, NATURAL GAS CONSUMPTION

The Gas Requirements Committee (GRC) is a subcommittee of the Gas Demand Committee, a board-level committee of the American Gas Association. The GRC has been publishing reports on gas consumption since 1964, and is considered one of the three major sources of comprehensive data on natural gas consumption. The Energy Information Agency (EIA) within the U.S. Department of Energy and the American Gas Association are the other two. The Statistics and Related Economics Committee of the A.G.A. has decided to include the GRC data on natural gas consumption in this edition as part of the effort to continually improve the usefulness of the data provided in *Gas Facts*.

Comparison of consumption figures published by the three above-mentioned sources for any given year would result in some discrepancies. Certainly one reasonable explanation is that the three groups use different methods in the collection and compilation of natural gas consumption data. The major differences are caused by varying definitions, sample sizes, and points of measurement.

The GRC measure of consumption is defined as adding together the end-use consumption of all gas users including company use, unaccounted for gas and field use on a national basis only. The EIA measure of consumption is defined as the sum of deliveries to consumers, lease and plant fuel, and pipeline fuel. The A.G.A. measure of consumption is restricted to sales to consumers that are made by gas utility companies *only* and, therefore, is a subset of total United States gas consumption.

It is not the intention of the Statistics and Related Economics Committee to reconcile the differences among the reported consumption data. Rather, the reader should be aware that three sources of data exist. If the reader wishes to further analyze the GRC or EIA consumption data, it is reported in the GRC *Future Gas Consumption in the United States* reports or the EIA *Natural Gas Annual* reports.

The subsequent pages excerpt the following information from GRC publications: United States gas consumption by state, region and class of service—1985, total commercial and industrial consumption by standard industrial classification—1985, and United States gas consumption by class of service, 1975–1985.

1985
UNITED STATES GAS CONSUMPTION BY STATE, REGION & CLASS OF SERVICE

(Millions of Cubic Feet)[a]

	Region and State	Firm			
		Residential	Commercial	Industrial	Electric Utilities
(1)	**United States Total**				
(2)	**Field Use**				
(3)	**Total Excluding Field Use**	**4,559,026**	**2,255,642**	**3,845,440**	**1,616,996**
(4)	**1. New England**	**149,703**	**76,937**	**29,533**	**108**
(5)	Connecticut	32,949	16,916	9,565	—
(6)	Maine	540	1,127	625	—
(7)	Massachusetts	95,096	48,552	15,713	108
(8)	New Hampshire	4,645	4,207	530	—
(9)	Rhode Island	15,028	5,135	2,969	—
(10)	Vermont	1,445	1,000	131	—
(11)	**2. Appalachian**	**1,313,482**	**566,004**	**522,807**	**2,568**
(12)	Delaware	7,362	3,412	3,795	32
(13)	District of Columbia	16,462	5,652	442	—
(14)	Kentucky	60,917	31,563	33,240	744
(15)	Maryland	69,304	14,640	24,884	198
(16)	New Jersey	153,017	76,715	31,852	—
(17)	New York	328,264	136,489	70,256	1,110
(18)	Ohio	337,983	146,580	159,075	379
(19)	Pennsylvania	250,980	109,922	145,809	105
(20)	Virginia	50,480	22,974	28,211	—
(21)	West Virginia	38,713	18,057	25,243	—
(22)	**3. Southeast**	**259,122**	**160,985**	**216,126**	**52,114**
(23)	Alabama	54,541	19,588	52,885	1,024
(24)	Florida	15,828	25,873	17,806	50,438
(25)	Georgia	85,997	41,550	26,938	—
(26)	North Carolina	29,412	23,013	58,795	633
(27)	South Carolina	29,081	10,039	15,098	3
(28)	Tennessee	44,263	40,922	44,604	16
(29)	**4. Great Lakes**	**1,066,079**	**517,014**	**558,037**	**7,377**
(30)	Illinois	455,923	216,338	233,213	4,395
(31)	Indiana	148,220	67,906	152,240	952
(32)	Michigan	345,160	162,974	137,836	1,857
(33)	Wisconsin	116,776	69,796	34,748	173
(34)	**5. Northern Plains**	**251,351**	**140,204**	**91,039**	**565**
(35)	Iowa	78,381	38,663	60,420	562
(36)	Minnesota	103,806	54,450	10,150	3
(37)	Nebraska	47,653	31,686	18,717	—
(38)	North Dakota	10,174	7,761	700	—
(39)	South Dakota	11,337	7,644	1,052	—
(40)	**6. Mid-Continent**	**289,531**	**126,753**	**141,982**	**238,715**
(41)	Kansas	85,952	34,398	36,266	10,881
(42)	Missouri	128,243	52,394	21,780	—
(43)	Oklahoma	75,336	39,961	83,936	227,834
(44)	**7. Gulf Coast**	**364,173**	**215,659**	**2,039,345**	**1,232,523**
(45)	Arkansas	41,784	23,376	69,098	10,127
(46)	Louisiana	66,318	32,430	714,461	179,307
(47)	Mississippi	28,920	18,825	67,493	47,171
(48)	Texas	227,151	141,028	1,188,293	995,918
(49)	**8. Rocky Mountain**	**168,112**	**104,619**	**31,520**	**1,668**
(50)	Colorado	87,827	61,039	18,041	1,668
(51)	Montana	19,142	13,864	1,686	—
(52)	Utah	48,563	19,822	5,087	—
(53)	Wyoming	12,580	9,894	6,706	—
(54)	**9. Pacific Southwest**	**619,990**	**273,212**	**91,668**	**68,926**
(55)	Arizona	29,146	26,882	22,811	43,399
(56)	California	551,669	215,288	52,192	4,163
(57)	Nevada	16,164	9,390	5,833	8,506
(58)	New Mexico	23,011	21,652	10,832	12,860
(59)	**10. Pacific Northwest**	**64,267**	**52,641**	**54,510**	**32**
(60)	Idaho	7,810	8,756	18,997	21
(61)	Oregon	22,052	18,874	11,257	—
(62)	Washington	34,405	25,011	24,256	11
(63)	**11. Pacific**	**13,216**	**21,614**	**68,873**	**12,400**
(64)	Alaska	12,625	19,334	68,873	12,400
(65)	Hawaii	591	2,280	—	—

a. Btu content equals 1,000 Btu per cubic foot.

APPENDIX D

1985 (Continued)
UNITED STATES GAS CONSUMPTION BY STATE, REGION & CLASS OF SERVICE

(Millions of Cubic Feet)[a]

Interruptible					
Commercial	Industrial	Electric Utilities	Other	Total Consumption	
				18,423,124	(1)
				1,051,000	(2)
302,322	**2,154,120**	**1,567,307**	**1,071,371**	**17,372,124**	(3)
15,221	**27,530**	**43,099**	**16,317**	**358,448**	(4)
8,285	9,426	1,611	4,290	83,042	(5)
—	228	—	113	2,633	(6)
3,795	13,715	38,780	9,527	225,286	(7)
—	957	82	404	10,825	(8)
2,578	1,480	2,532	1,763	31,485	(9)
563	1,724	94	220	5,177	(10)
68,105	**341,960**	**269,623**	**243,784**	**3,328,333**	(11)
139	3,725	6,106	1,031	25,602	(12)
5,234	183	—	1,248	29,221	(13)
549	17,384	346	22,696	167,439	(14)
7,083	34,748	49	8,931	159,837	(15)
6,992	51,285	63,085	24,325	407,271	(16)
22,840	34,557	197,502	42,223	833,241	(17)
3,970	100,736	114	28,018	776,855	(18)
11,689	73,779	1,137	39,998	653,419	(19)
9,048	12,417	1,136	11,209	135,475	(20)
561	13,146	148	44,105	139,973	(21)
34,958	**346,671**	**119,057**	**79,028**	**1,268,061**	(22)
3,344	66,956	62	16,035	214,435	(23)
9,524	56,981	117,766	6,525	300,741	(24)
12,000	116,755	908	27,735	311,883	(25)
1,256	17,959	4	8,437	139,509	(26)
4,124	37,719	317	5,580	101,961	(27)
4,710	50,301	—	14,716	199,532	(28)
16,896	**237,233**	**5,053**	**89,924**	**2,497,613**	(29)
391	53,652	3,345	62,328	1,029,585	(30)
2,159	64,954	—	12,199	448,630	(31)
2,447	44,551	440	11,273	706,538	(32)
11,899	74,076	1,268	4,124	312,860	(33)
49,784	**98,101**	**5,845**	**24,248**	**661,137**	(34)
7,433	29,824	597	13,476	229,356	(35)
28,561	48,848	3,743	4,341	253,902	(36)
8,159	16,330	1,487	5,764	129,796	(37)
2,566	1,349	7	570	23,127	(38)
3,065	1,750	11	97	24,956	(39)
45,268	**240,678**	**14,151**	**91,891**	**1,188,969**	(40)
31,622	99,374	8,750	56,837	364,080	(41)
9,910	38,770	2,639	12,861	266,597	(42)
3,736	102,534	2,762	22,193	558,292	(43)
5,621	**466,132**	**414,491**	**385,426**	**5,123,370**	(44)
4,241	14,032	—	17,703	180,361	(45)
1,379	135,595	149,015	94,380	1,372,885	(46)
—	3,649	317	26,924	193,299	(47)
1	312,856	265,159	246,419	3,376,825	(48)
17,487	**54,979**	**4,048**	**11,256**	**393,659**	(49)
9,783	10,632	4,029	8,158	201,177	(50)
301	7,049	19	985	43,046	(51)
6,669	23,824	—	700	104,665	(52)
704	13,474	—	1,413	44,771	(53)
33,824	**265,448**	**673,347**	**121,653**	**2,148,068**	(54)
—	—	—	18,592	140,830	(55)
33,824	265,448	673,347	75,835	1,871,766	(56)
—	—	—	1,541	41,432	(57)
—	—	—	25,685	94,040	(58)
12,604	**70,888**	**61**	**3,788**	**258,758**	(59)
304	632	—	150	36,670	(60)
638	27,467	—	1,335	81,623	(61)
11,662	42,789	61	2,270	140,465	(62)
2,584	**4,300**	**18,532**	**3,989**	**145,708**	(63)
2,335	4,500	18,532	3,885	142,484	(64)
249	—	—	104	3,224	(65)

1985
TOTAL COMMERCIAL AND INDUSTRIAL CONSUMPTION BY STANDARD INDUSTRIAL CLASSIFICATION

(Millions of Cubic Feet)[a]

Group	Description	Region[b] 1	2	3	4
01–09	Agriculture, Forestry & Fishing	829	4,928	124	8,212
10–14	Mining	13	1,432	2,539	3,808
15–17	Construction	979	7,285	668	4,882
20	Food & Kindred Products	4,431	62,206	47,711	95,793
21	Tobacco Manufacturers	105	1,685	715	96
22	Textile Mill Products	2,179	9,960	48,949	1,895
23	Apparel & Other Textile Products	273	4,028	5,825	729
24	Lumber & Wood Products	187	4,307	2,698	3,448
25	Furniture & Fixtures	208	2,840	1,003	4,279
26	Paper & Allied Products	2,748	42,617	54,169	48,921
27	Printing & Publishing	941	6,309	1,179	8,711
28	Chemicals & Allied Products	2,660	124,368	89,199	83,149
29	Petroleum & Coal Products	320	22,260	15,515	29,710
30	Rubber & Misc. Plastics Products	1,109	18,493	11,155	14,024
31	Leather & Leather Products	129	874	596	2,141
32	Stone, Clay, Glass & Concrete Products	4,234	94,382	56,967	39,037
331–332	Primary Iron & Steel	3,173	183,611	32,034	196,942
333–339	Primary Nonferrous Metals	881	51,448	14,663	34,921
34	Fabricated Metal Products	5,319	43,779	9,382	39,110
35	Machinery, except Electrical	3,381	31,717	3,281	32,551
36	Electric & Electronic Equipment	2,777	24,730	5,923	20,159
37	Transportation Equipment	1,313	32,345	6,048	49,367
38	Instruments & Related Products	1,393	5,259	625	1,851
39	Other Manufacturing	809	23,305	3,974	18,314
40–48	Transportation	3,129	18,929	2,068	10,968
49	Utility Services other Than Electric Generation	4,299	14,196	1,486	19,778
50–51	Wholesale Trade	2,311	15,563	2,725	14,315
52–57,59	Retail Trade	5,709	33,209	3,939	33,000
58	Restaurants and Drinking Places	6,122	29,833	14,159	23,402
60–64,66,67	Finance & Insurance	1,148	6,729	612	5,092
65	Real Estate (Apartments)	15,927	77,542	7,747	36,575
70	Hotels & Other Lodging Places	1,409	12,639	3,383	12,262
72–79	Services	4,254	34,463	4,817	51,156
80	Health Services, Hospitals	5,716	52,908	17,046	43,792
81,83,84	Legal & Social Services	459	4,592	1,711	17,862
82	Education (Schools)	5,096	56,053	11,972	60,220
86,88,89	Membership Organization & Misc. Services	1,801	24,338	1,790	20,992
91–97	Public Administration	2,537	28,997	12,227	28,480
99	Non-Classifiable	944	4,476	1,074	11,882
	Not Classified by SIC or Unreported	47,969	279,741	257,044	197,344
	Total Commercial & Industrial	**149,221**	**1,498,876**	**758,740**	**1,329,190**

a. Btu content equals 1,000 Btu per cubic foot.
b. For region definition see previous table on page 208.

APPENDIX D

1985 (continued)
TOTAL COMMERCIAL AND INDUSTRIAL CONSUMPTION BY STANDARD INDUSTRIAL CLASSIFICATION

(Millions of Cubic Feet)[a]

Region[b]								
5	6	7	8	9	10	11	Total	Group
1,700	9,346	20,807	2,123	14,541	1,288	—	1,898	01–09
502	17,891	16,409	5,975	38,040	5,018	—	81,627	10–14
689	337	1,271	1,529	2,177	458	—	20,275	15–17
16,835	16,681	34,134	10,043	53,060	21,337	—	362,231	20
10	1	206	1	—	—	—	2,819	21
130	507	750	32	3,825	237	—	68,464	22
80	8	731	53	696	56	—	12,479	23
3,297	6,667	4,512	263	2,337	6,313	—	34,029	24
413	107	639	60	1,057	81	—	10,687	25
2,378	3,098	55,517	3,392	23,766	30,045	—	266,651	26
199	310	550	170	2,253	6,473	—	27,095	27
31,637	141,526	929,780	17,146	33,976	8,088	—	1,461,529	28
655	47,173	651,017	13,209	74,686	7,867	—	862,412	29
1,156	3,657	14,617	1,086	3,490	199	—	68,986	30
95	1,400	53	51	242	9	—	5,588	31
2,018	21,404	34,006	4,879	43,999	4,547	—	305,973	32
399	1,913	5,908	14,006	6,408	4,121	—	448,515	331–332
1,233	5,513	78,532	1,354	24,055	6,458	—	219,058	333–339
1,058	3,645	11,900	740	11,527	895	—	127,355	34
2,120	398	3,111	1,508	4,492	1,767	—	86,326	35
928	6,566	3,564	924	6,843	222	—	72,636	36
407	6,771	5,503	929	10,042	5,219	—	117,944	37
127	781	342	1,183	1,220	47	—	12,828	38
1,065	931	4,894	320	927	4,557	—	59,096	39
1,915	8,420	1,795	4,196	6,653	1,466	—	59,539	40–48
2,158	11,498	11,927	650	15,122	1,331	—	82,445	49
2,394	724	1,738	1,945	7,825	1,263	—	50,803	50–51
5,354	3,521	17,766	7,747	11,373	2,419	—	124,037	52–57,59
2,041	2,151	3,438	2,994	24,902	2,720	342	112,104	58
1,206	426	684	933	2,622	255	—	19,712	60–64,66,67
4,701	4,966	4,566	18,356	9,558	2,706	570	183,214	65
1,687	1,667	3,881	2,820	14,134	1,331	1,314	56,527	70
3,461	1,077	2,711	4,880	23,237	2,962	—	133,038	72–79
4,731	22,377	7,996	4,646	17,437	5,214	130	181,993	80
1,544	99	1,107	395	3,087	425	—	31,281	81,83,84
7,896	8,564	7,805	8,736	22,456	5,884	160	194,842	82
2,230	620	1,275	2,017	9,965	1,164	—	66,197	86,88,89
1,640	6,219	2,715	6,683	12,260	3,162	13	104,833	91–97
386	11,873	285	13,543	6,084	247	—	50,794	99
266,653	173,848	778,315	47,158	113,758	42,792	95,042	2,299,664	
379,128	**884,681**	**2,726,787**	**208,575**	**664,182**	**190,643**	**97,571**	**8,587,524**	

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UNITED STATES GAS CONSUMPTION BY CLASS OF SERVICE, 1975–1985

(Millions of Cubic Feet)[a]

	Firm				Interruptible						
Year	Residential	Commercial	Industrial	Electric Utilities	Commercial	Industrial	Electric Utilities	Other	Total Excluding Field Use	Field Use	Total Consumption
1975	4,981,448	2,415,713	5,116,697	2,025,981	271,223	1,935,675	1,024,480	1,173,759	18,944,976	1,426,000	20,370,976
1976	5,090,126	2,536,585	5,334,144	2,106,027	270,359	1,846,102	956,247	1,243,448	19,383,038	1,667,000	21,050,038
1977	4,909,373	2,463,206	5,019,752	2,017,471	222,735	1,651,440	998,913	1,167,724	18,450,614	1,694,000	20,144,614
1978	5,132,207	2,746,861	6,486,614	2,926,048	b	b	b	1,304,150	18,595,880	1,679,000	20,274,880
1979	5,144,003	2,770,674	6,973,202	3,274,967	b	b	b	1,233,424	19,396,270	1,530,000	20,926,270
1980	4,868,509	2,363,209	5,167,578	2,161,516	247,205	1,967,741	1,430,447	1,354,737	19,560,942	1,053,000	20,613,942
1981	4,654,258	2,240,388	5,026,609	2,142,754	249,760	2,001,333	1,632,357	1,350,019	19,297,478	953,000	20,250,478
1982	4,708,934	2,303,029	4,045,749	1,927,775	270,952	1,655,883	1,346,773	1,141,246	17,400,341	1,140,000	18,540,341
1983	4,429,538	2,179,757	3,763,706	1,721,185	258,656	1,903,910	1,294,767	1,180,978	16,732,497	1,009,000	17,741,497
1984[R]	4,632,219	2,297,317	3,861,396	1,683,711	291,848	2,097,198	1,515,668	960,594	17,339,951	1,110,000	18,449,951
1985	4,559,026	2,255,642	3,845,440	1,616,976	302,322	2,154,120	1,567,307	1,071,271	17,372,124	1,051,000	18,423,124

a. Btu content equals 1,000 Btu per cubic foot.
b. In 1978 and 1979, firm and interruptible service were not measured individually; therefore all consumption is included under firm for each class of service.
R–Revised.